TOSHIBA

Maintenance Tool For Drive

Wi Tool

Instruction manual

Jun, 2002

TOSHIBA CORPORATION

Wi Tool Operation Description Table of Contents

[1] Introduction

This document describes the *Wi Tool* which is a tool for the Toshiba Wi Series drive equipment. For information on how to install *Wi Tool* on your PC, refer to the "Installation manual" (6F3A4507). Note that the drive equipment cannot be connected unless the correct connection method and PC settings are used. Be sure to understand the concept of these settings thoroughly.

The following topics are described:

Chapter 2: Connection Method
Chapter 3: Startup Method
Chapter 4: Main Window Description
Chapter 5: Function Summary
Chapter 6: Function Details
Chapter 7: Connection Other than 1:1 Connection

<Before you begin>
Microsoft and Toshiba have the Copyrights to this software. Copying this software to unauthorized PC is prohibited.
Do not install programs other than the above on your PC. The settings of your PC may be altered causing the *Wi Tool* to slow down or become inoperable.

<Notes on rewriting drive equipment data>
Observe the following when rewriting the drive equipment data.

1) Rewriting the data may disturb the drive equipment. (For example, if the speed setting is rewritten, the motor speed will change. If the control gain is rewritten, the control system will change causing it to trip or become unstable.) Be very careful when rewriting. When the motor is running, the message "OK to rewrite while running?" appears on the screen.

2) When rewriting the data, there is a password function on the drive equipment side. If the correct password is not provided, a password error occurs and the data remains unchanged.

3) The setting in the drive equipment is normally written in RAM. *Wi Tool* normally modifies this data in RAM. However, this data in RAM is erased once the power is turned off. Therefore, the drive equipment also holds the settings in EEPROM which is not erased when the power is turned off and the settings are copied to RAM from EEPROM when the power is turned on. When data is changed with the *Wi Tool*, only the data in RAM is changed. Therefore, the settings must be copied from RAM to EEPORM before turning the power off.

<Maintenance>
This software is supplied on CD-ROM. Keep it as backup.

[2] *Wi Tool* **connection**

The following three types of network connections are available for *Wi Tool*:
1) 1:1 connection
   PC and drive are connected 1 to 1.
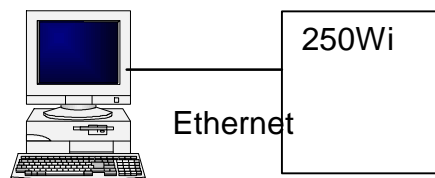   Therefore, only one PC and drive equipment are connected to the network.

Figure 2 1:1 connection

2) 1:N connection
   Multiple drive equipments are connected to a single PC.
   Normally, the network is connected through a device called the HUB.
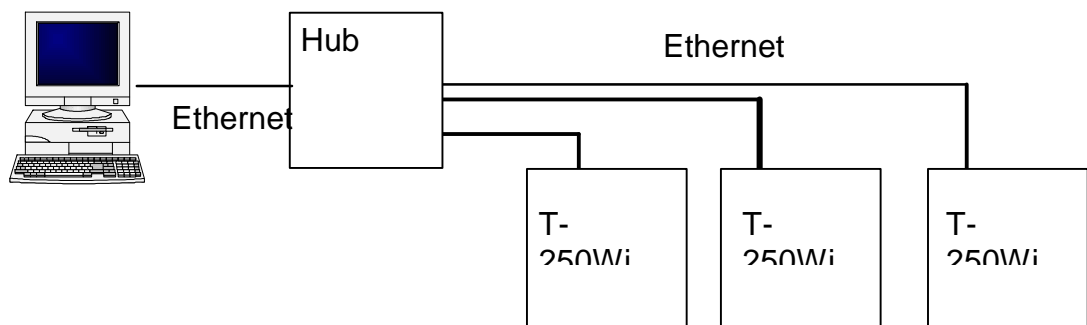   In this case, an IP address is required for the PC and each drive unit.

Figure 2 1:N connection

3) 1:N RIO connection

This is a connection made via Integrated Controller V Series.
The PC is connected to the Integrated Controller network and exchanges messages with the Integrated Controller RIO (Remote I/O Controller).
RIO and drive equipment exchange messages using the message transmission function of the Transmission Unit TL-S20. Consequently, the PC exchanges messages with the drive equipment.

In this case, an IP address is required for the PC and each RIO.

The drive equipment does not need an IP address because message is exchanged using the TL-S20.
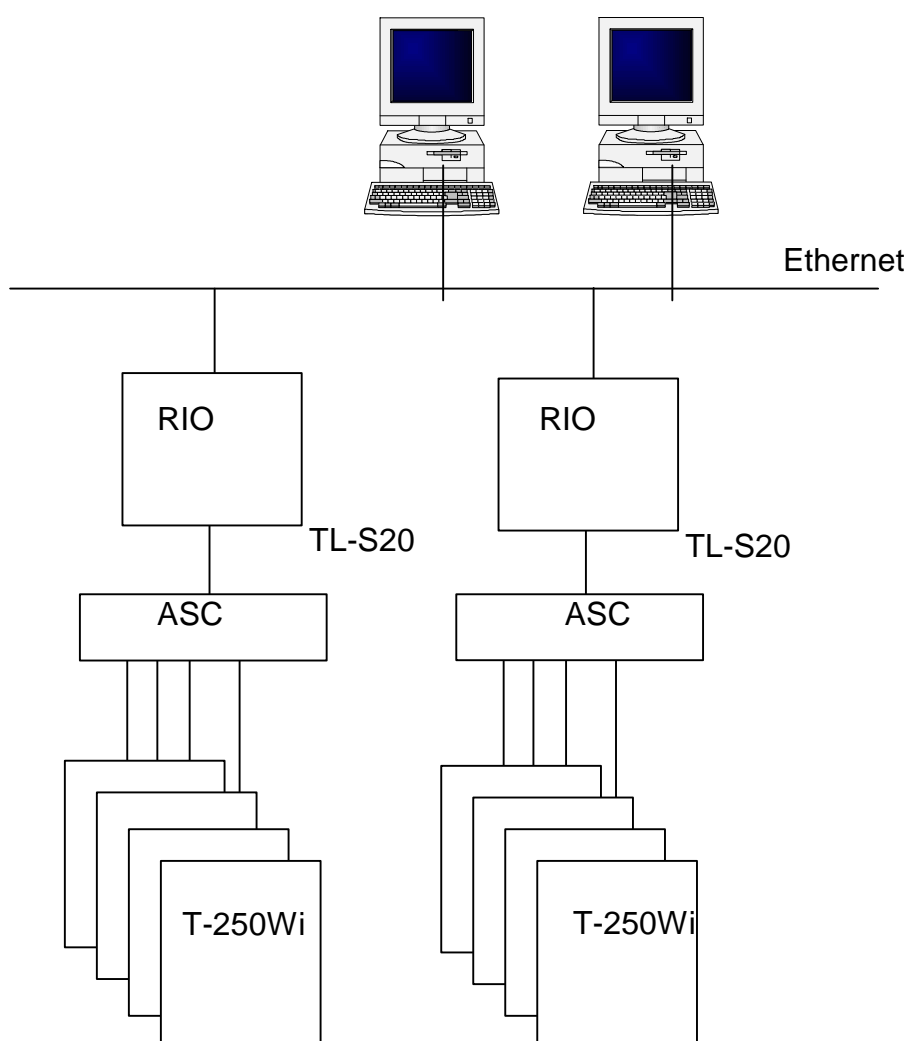

Figure 2.3 RIO connection

The necessary information, the creation of setup file based on this information, PC setup, and the window display depend on the selected connection method ((1) 1:1, (2) 1:N, or (3) 1:N RIO).

Refer to the "Installation manual" (6E3A4507) for details.

4) Connection between PC and drive equipment

The actual connection between the PC and drive equipment is made by an Ethernet cable.

(1) In the case of 1:1 connection, connect the TOOL connector on the drive equipment board and the Ethernet connector of the PC with an Ethernet cross cable. The Ethernet cross cable is provided with
Wi Tool.

(2) In the case of 1:N, it is not possible to connect to the drive equipment board. Connect the Ethernet connector of the PC and the hub with an Ethernet straight cable because the signal from the drive equipment is connected to the Ethernet hub.

(3) In the case of 1:N RIO connection, connect the Ethernet connector of the PC and the hub with an Ethernet straight cable as with (2) 1:N connection.

Cross cable and straight cable are available as Ethernet cable. Note that the correct cable must be used. A single cross cable is included with *Wi Tool*. Straight cables must be purchased separately.

[3] Starting *Wi Tool*

If installation is finished, *Wi Tool* can be started according to the following procedure:

1) Click the **START** button at the bottom left corner of the screen.
2) Select **Program/TOSHIBA Drive Tools**.
3) When *Wi Tool* appears, click it.

4) If **TOSHIBA Drive Tools** or *Wi Tool* is not displayed:

    Wi Tool may not be installed.
     Install it.
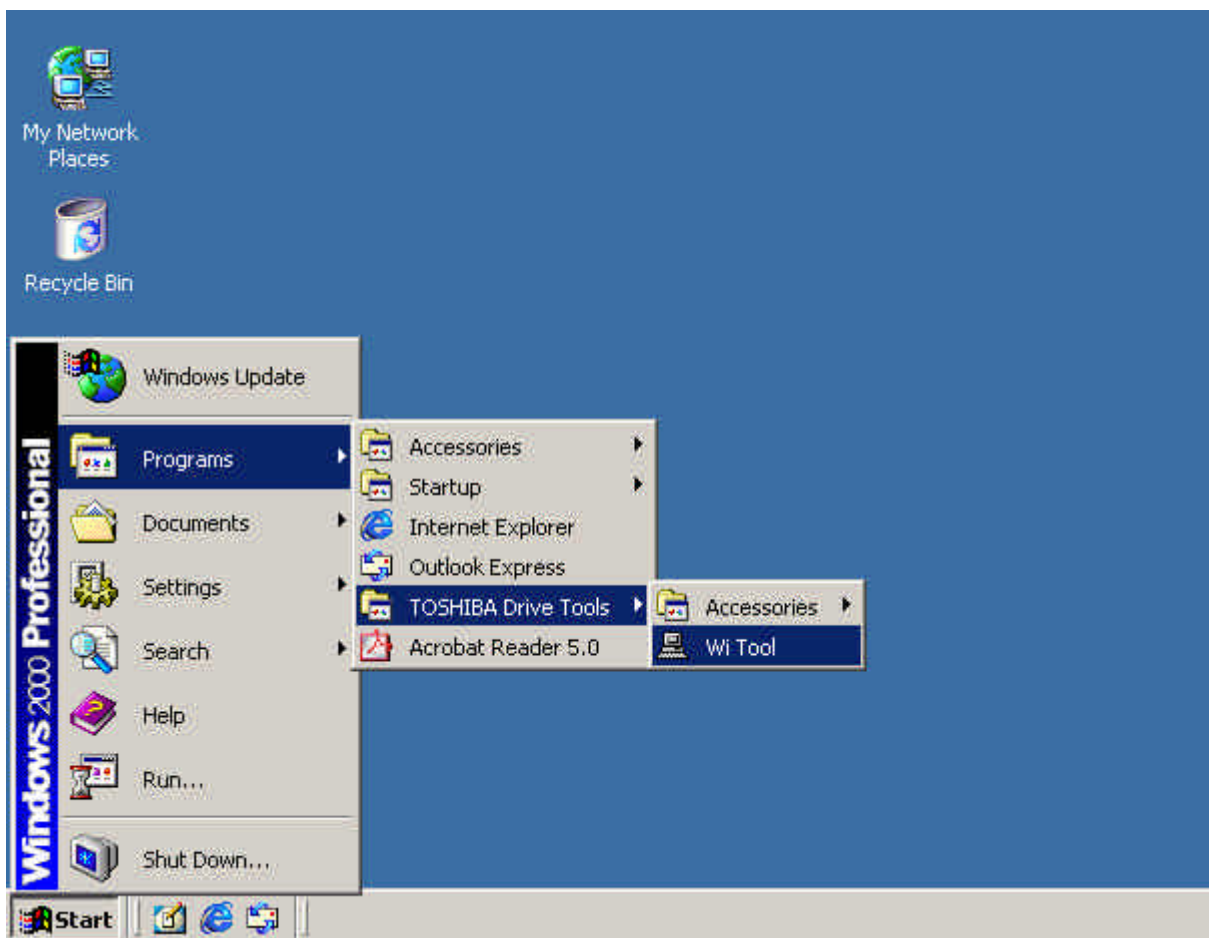   Refer to the "Installation manual" (6F3A4507) for details.

Figure 3.1 Starting *Wi Tool*

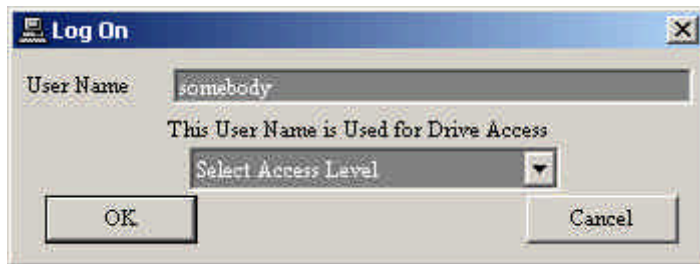The following window appears when *Wi Tool* is started.

Figure 3.2 Logon window

Enter the **User Name** and **Access Level** and then click OK.

A password input window appears when connecting to the drive equipment.

Figure 3.3 Password prompt

Enter the password and click OK.

<<User Name, Access Level, Password>>

The name of the operator allowed to connect to the drive equipment, access level of the operator, and the password for that operator are registered in each drive equipment.

This operator name is referred to as the **User Name**.
The access level is divided into ten levels from 0 (Read Only) to 9 (Full Access).

If the User Name and Access Level do not match those registered in the drive equipment, the drive equipment returns access level 0.

The User Name and Password are set to "TOSHIBA" at factory shipment.
Access level 9 is allowed with this user name.

This User Name and Access Level are entered when starting *Wi Tool* and are used to connect to the drive equipment.

[4] *Wi Tool* **main window**

The main window opens when the password is entered.
The standard 1:1 connection windows are described.

The main window consists of five main components:

   1) Title
   2) Menu bar
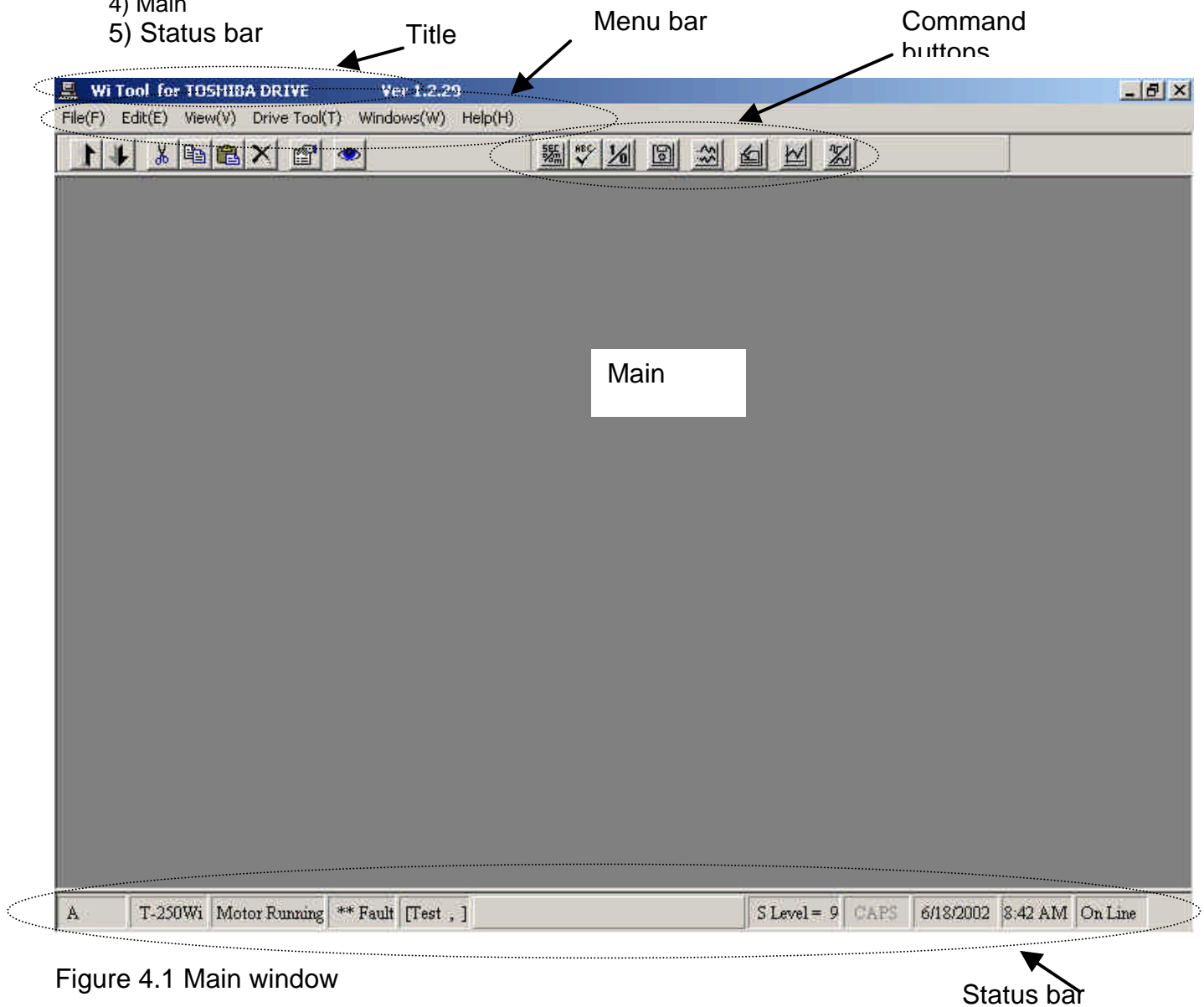   3) Command buttons
   4) Main
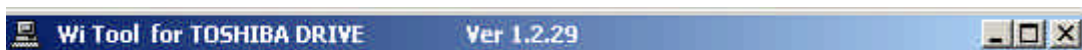   5) Status bar

Figure 4.1 Main window

1) Title

Figure 4.2 Title

The Title shows the *Wi Tool* program version etc.
Click the x at the right end to quit *Wi Tool*.
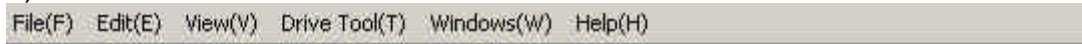
2) Menu bar

Figure 4.2 Menu bar

The Menu bar is used to select the function to be performed with *Wi Tool*. The following command buttons are also available for frequently used functions.

3) Command buttons

Figure 4.4 Command buttons

Command buttons are used to select the function to be performed with *Wi Tool*.

4) Main
Main shows the function selected from the Menu bar or with a Command button.

5) Status bar

Figure 4.5 Status bar

The Status bar shows the status of the connected driver unit.

The following items appear from left to right
   (1) Panel name of the connected drive equipment
   (2) Drive Type name of the connected drive equipment
   (3) Whether the status motor of the connected drive equipment is running/stopped
            Click to see the preparation view.
   (4) Fault status fault/alarm
   (5) Test mode, simulation mode
   (6) Allowed access level
   (7) PC keyboard status
   (8) PC date
   (9) PC time
   (10) Online (communicating with drive unit)
            Click when online to change to offline.
            Click when offline to change to online.

[5] *Wi Tool* functions

Wi Tool has the following functions. The details of the function are described in the next chapter.

(1) Word
Reads and writes data (control value motor speed, control gain, etc.) inside the drive equipment.

(2) Char string
Reads and writes character string data inside the drive equipment.

(3) Bit
Reads and writes data (sequence data etc.) inside the drive equipment.
Displays and write in bit units.

(4) Set point control
Saves set points in the drive equipment to a file. Or loads the data saved in file to the drive equipment and compares the set point in the drive equipment with the data saved in file. Also, transfers the set points in the drive equipment RAM to EEPROM.

(5) Traceback
Reads, displays as graph, prints, and saves to file the control data (motor speed, motor current, etc.) when there is a drive equipment fault.

(6) Snapshot
Controls the data record function of the drive equipment which specifies a trigger condition and saves the specified signal.

(7) Trend display
Collects drive equipment data from PC and displays them on the PC.

(8) Step response
Provides step reference for test to drive equipment from PC, starts step response, and displays/prints this data.
Also, saves data during step response to file and prints/displays data in file.

(9) Control password
Adds/deletes User Name, Access Level, and Password recorded in the drive equipment.

(10) Property
Displays and updates information in the drive equipment. The target data are, Panel Name, Toshiba Order No., Toshiba Item No., and drive internal clock data.

(11) Preparation
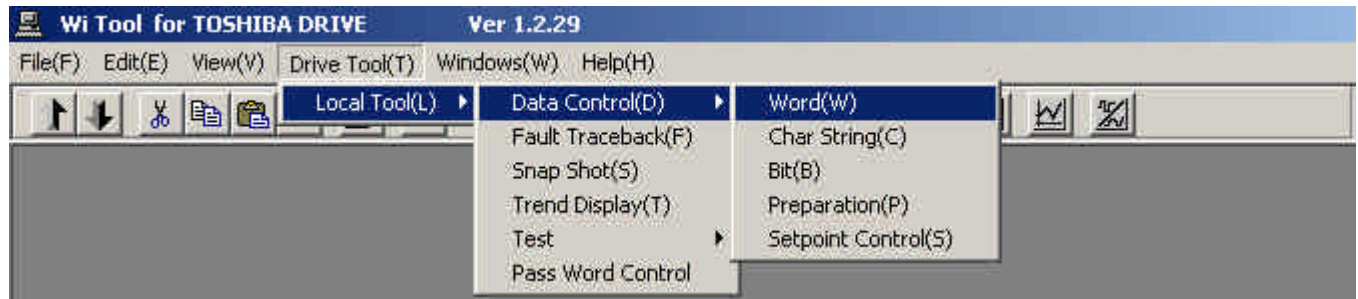Displays the drive equipment operating conditions. Displays the missing condition if there is any.

(12) End
Ends *Wi Tool.*

[6] *Wi Tool* **functions detail description**
[6-1] Word detail description
This function loads and writes data (control amount motor speed, control gain, etc.) inside the drive equipment.

Select **Drive Tool/Data Control/Word** from the menu bar

or click the command button

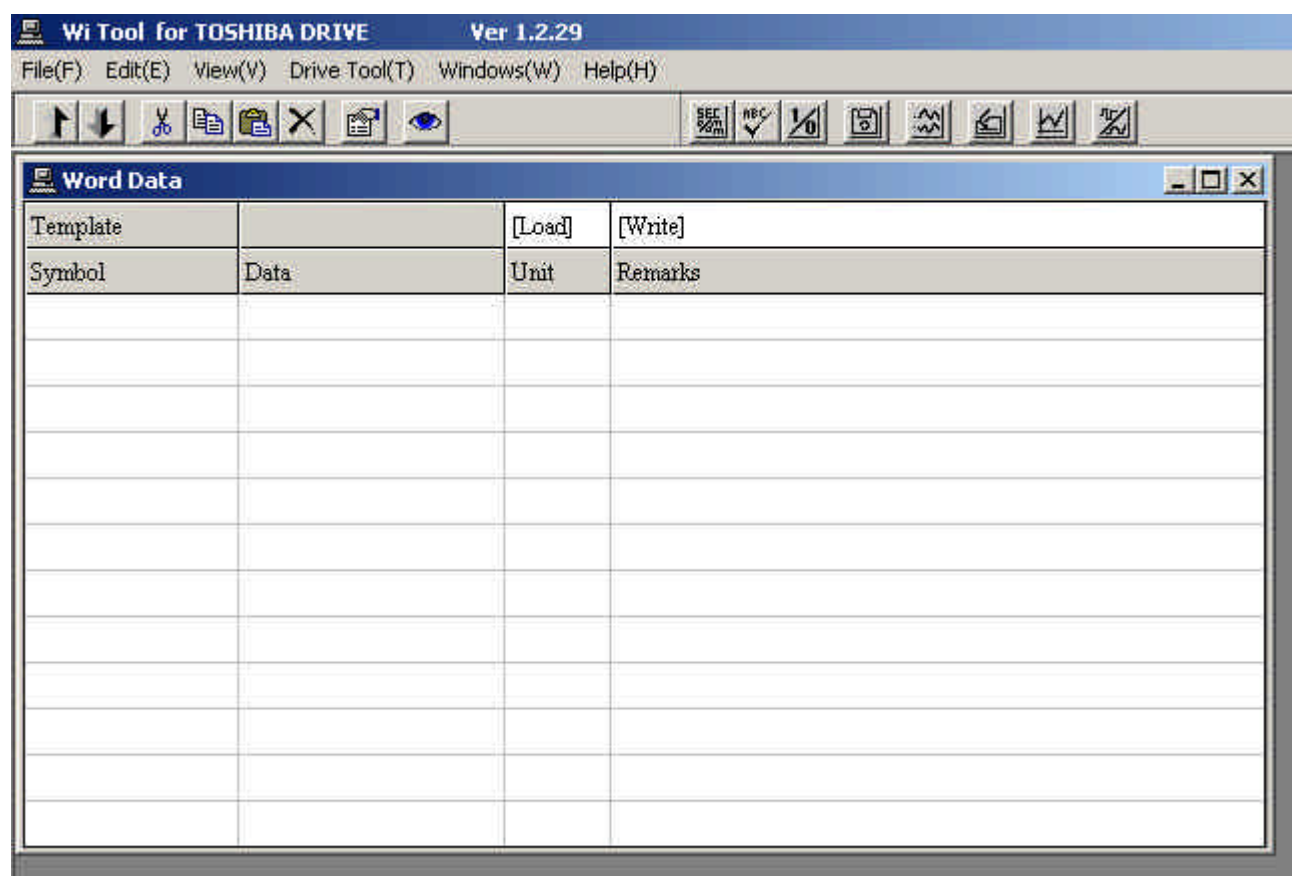to select. The following window appears.

Figure 6.1.1 Word window

To load the motor speed, first place the cursor on the symbol box on the left side and double click. (You can click any of the 12 lines.)
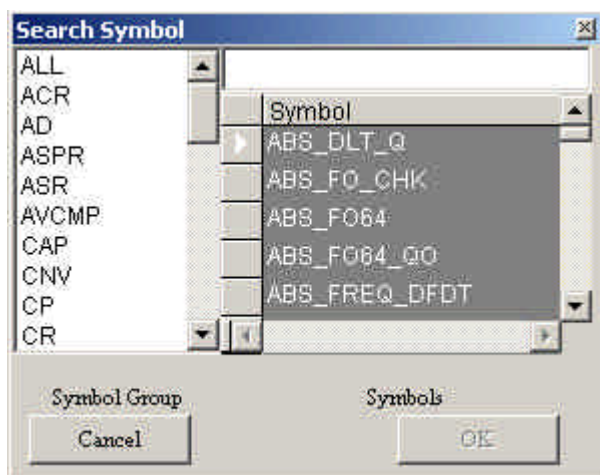Then the symbol input window appears.

Figure 6.1.2 Input Symbol

Next, enter "SP_R" which is the motor speed symbol. If this symbol is registered in the computer, it appears in the box at bottom. Click this SP_R in the bottom box and then click the OK button to select SP_R and display SP_R in the original window.
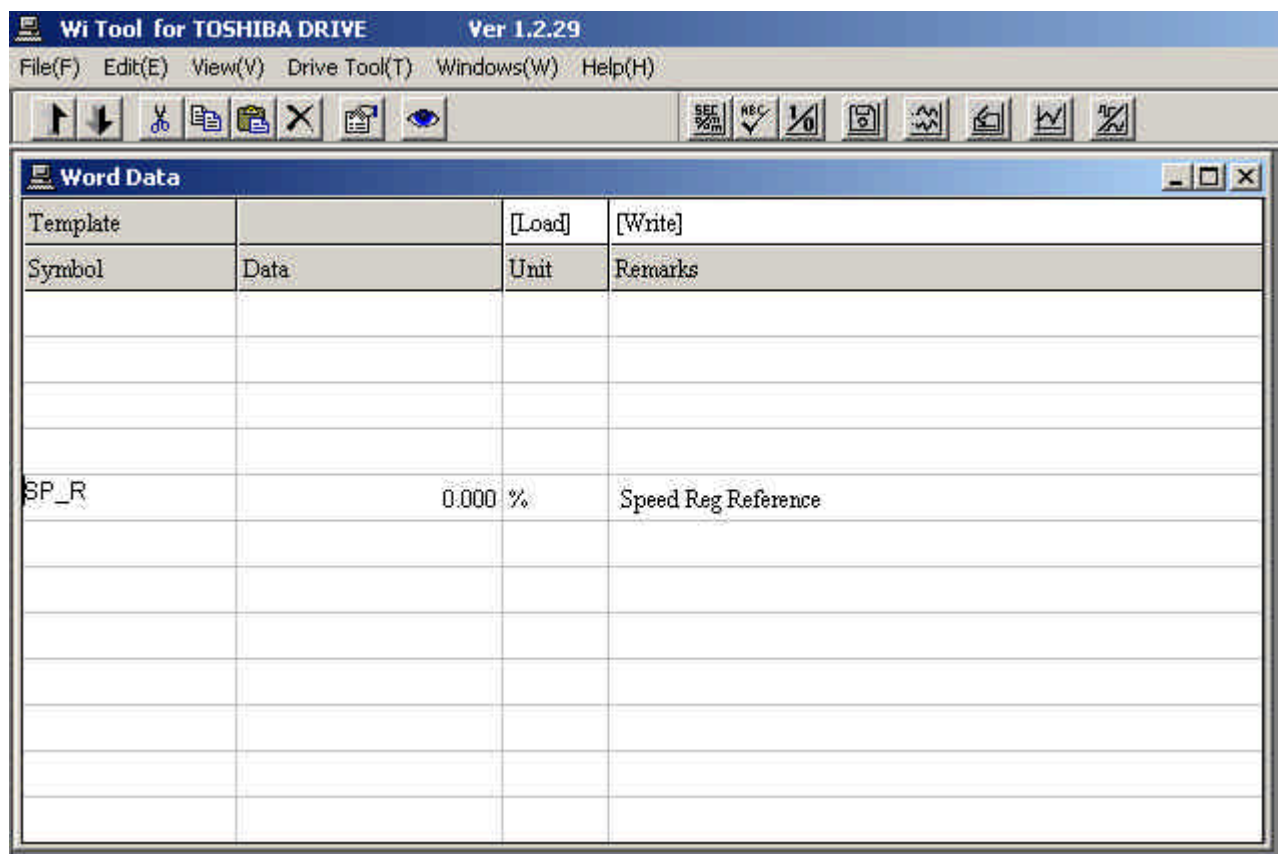

Figure 6.1.3 Word window

The data displayed in the box below the data is this data. In this case, 0.000% is shown. The unit is show at right. (% in this case) The description of this SP_R appears at the right end (if registered).

To rewrite the data, place the cursor on the data box, click and enter a value, and then press Enter to write the data.

(SP_R returns immediately to the original value because it is written inside the drive equipment.)

To rewrite the data, refer to "Chapter 1 Notes on Rewriting Drive Equipment Data."

Saving and loading template
Frequently used symbols can be registered to avoid repeated key entry. This is referred to as template.
For example, Speed Reference (SP_R), Motor Speed (SP_F), and Motor Current (I1_F) can be registered by first entering these data and then entering a name by clicking [Write]. Then next time the Word window appears, these symbols can be loaded simply by clicking [Load] and entering the previously specified name.

[6-2] String detail description

This function loads and writes character string data inside the drive equipment.

Select **Drive Tool/Data Control/Char String** from the menu bar
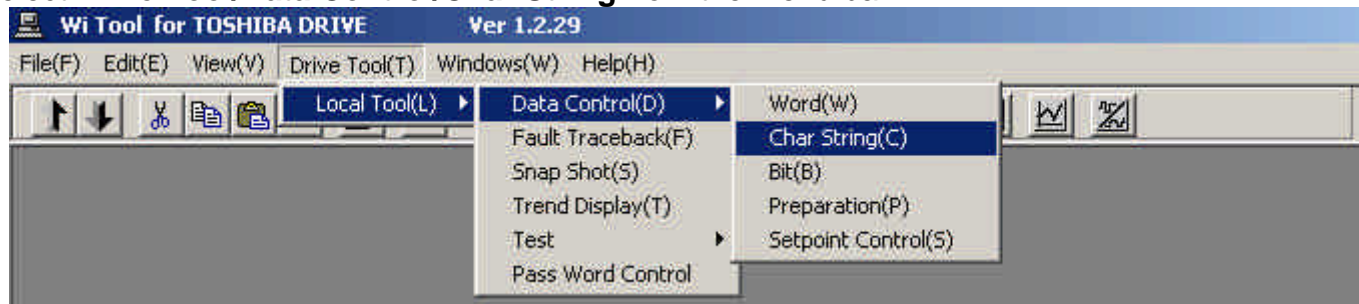
or click the command button
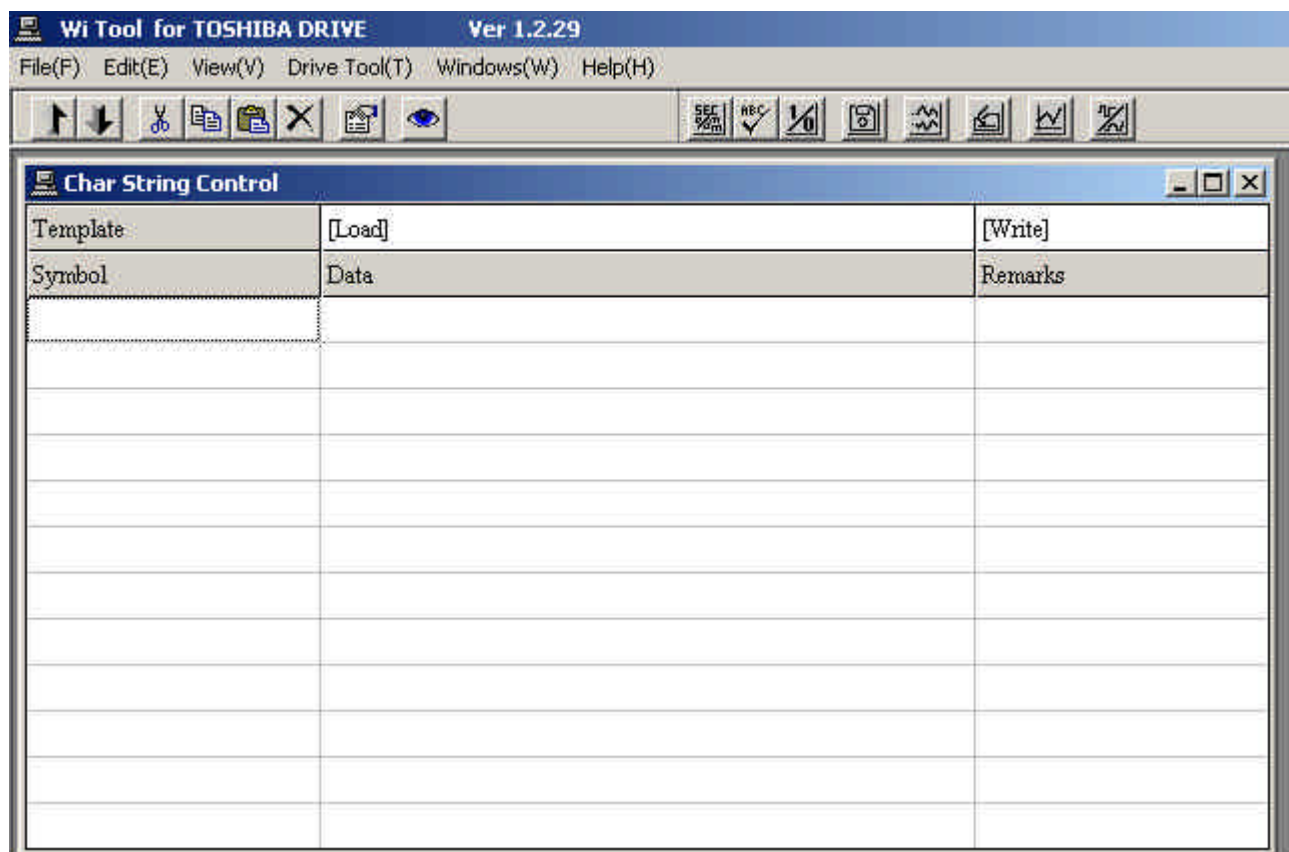

to select.

The following window appears.

Figure 6.2.1 Char String window

To load the drive equipment panel name, first place the cursor on the symbol box on the left side and double click. (You can click any of the 12 lines.)
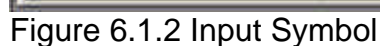Then the symbol input box appears.

Figure 6.1.2 Input Symbol

Then click INF_PANEL which is the drive equipment panel name symbol. The panel name is selected and appears in the window.

Figure 6.2.3 Char String window

The data displayed in the box under the data is the Char string data. In this example, it is empty. The description of INF_PANEL appears on the right.

To rewrite the data, place the cursor on the data box, click and enter the char string, and then press Enter to write the data.

[6-3] Bit detail description

This function loads and writes data (sequence data etc.) inside the drive equipment.
It displays and writes in bit units.

Select **Drive Tool/Data Control/Bit** from the menu bar
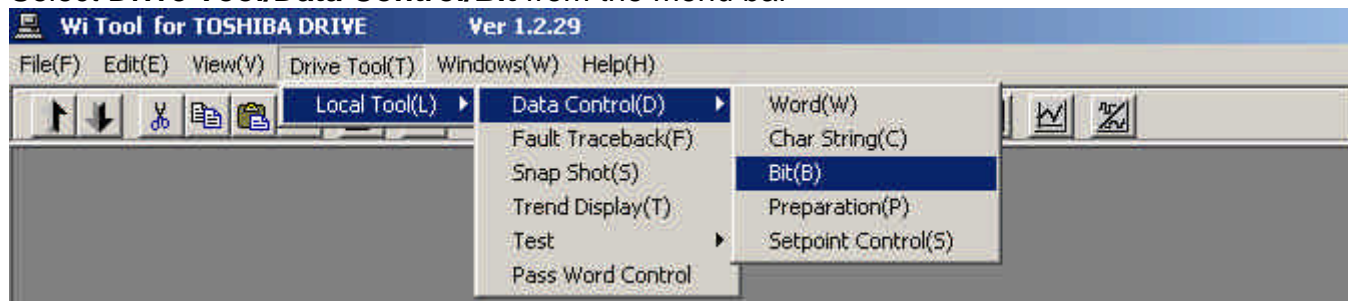
or click the command button

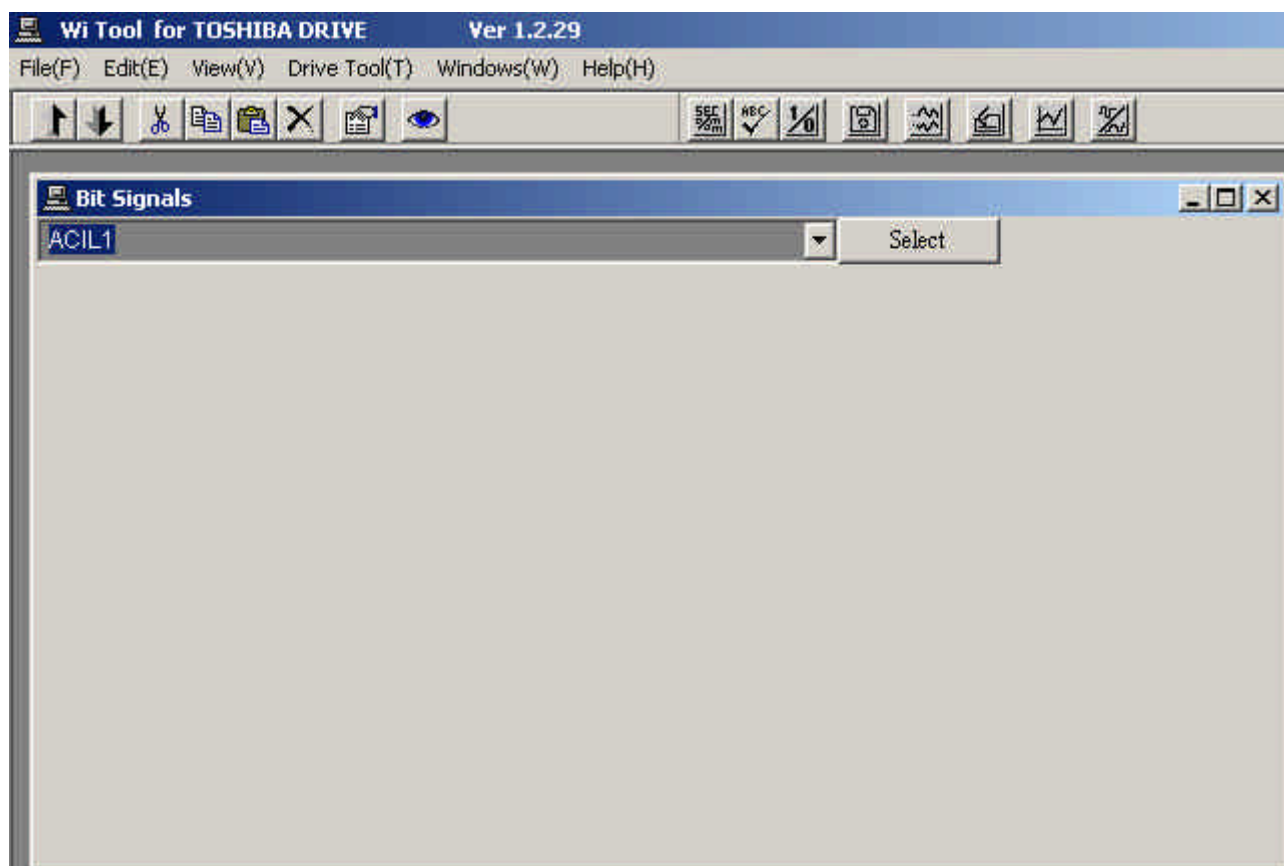
to select. The following window appears.

Figure 6.3.1 Bit window

To load the sequence data BLR1, first place the cursor on the ? symbol at the top left box and click.
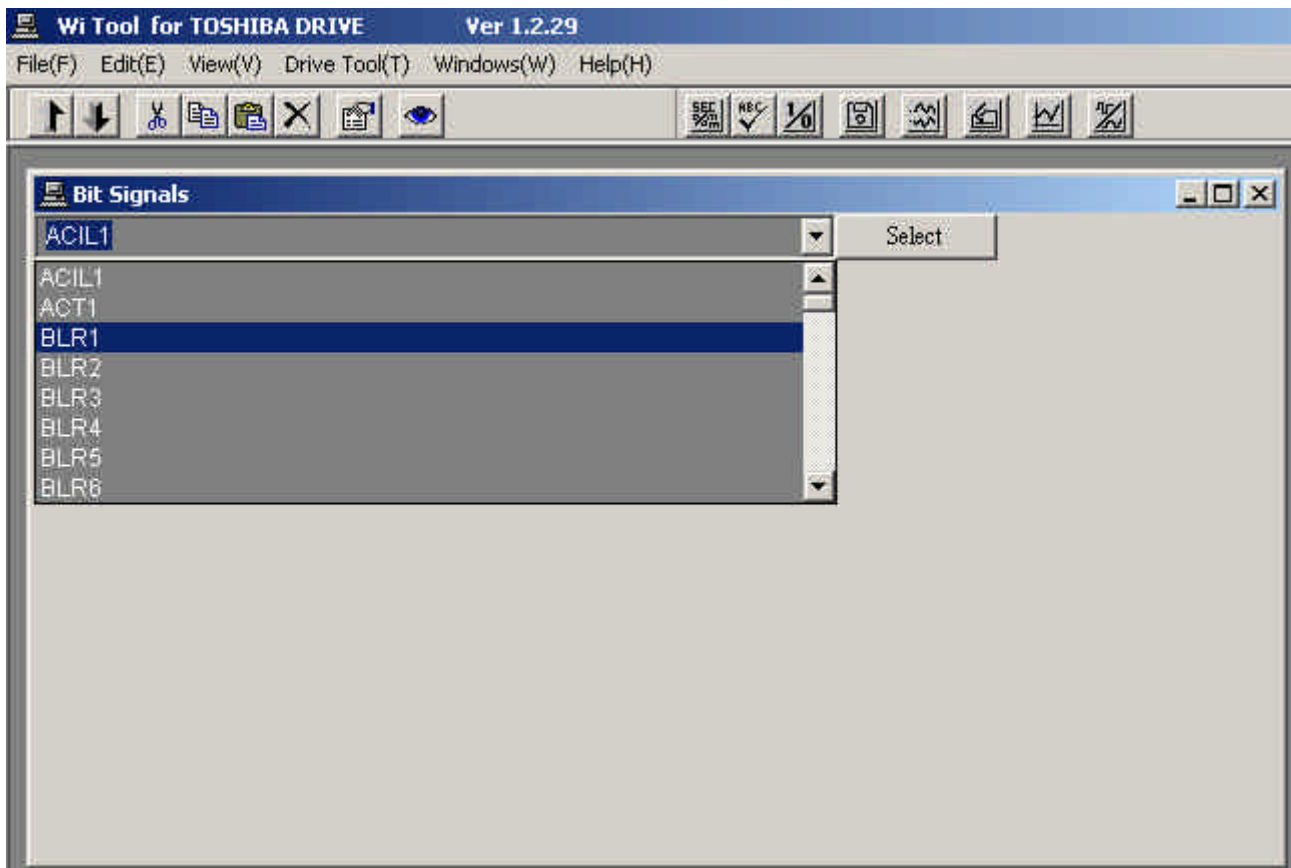Then the symbol selection list appears.

Figure 6.3.2 Symbol selection window

Next click BLR1 in the symbol selection list to close the symbol selection list and display BLR1 in the box. Then press the select button to select BLR1 and display its data.
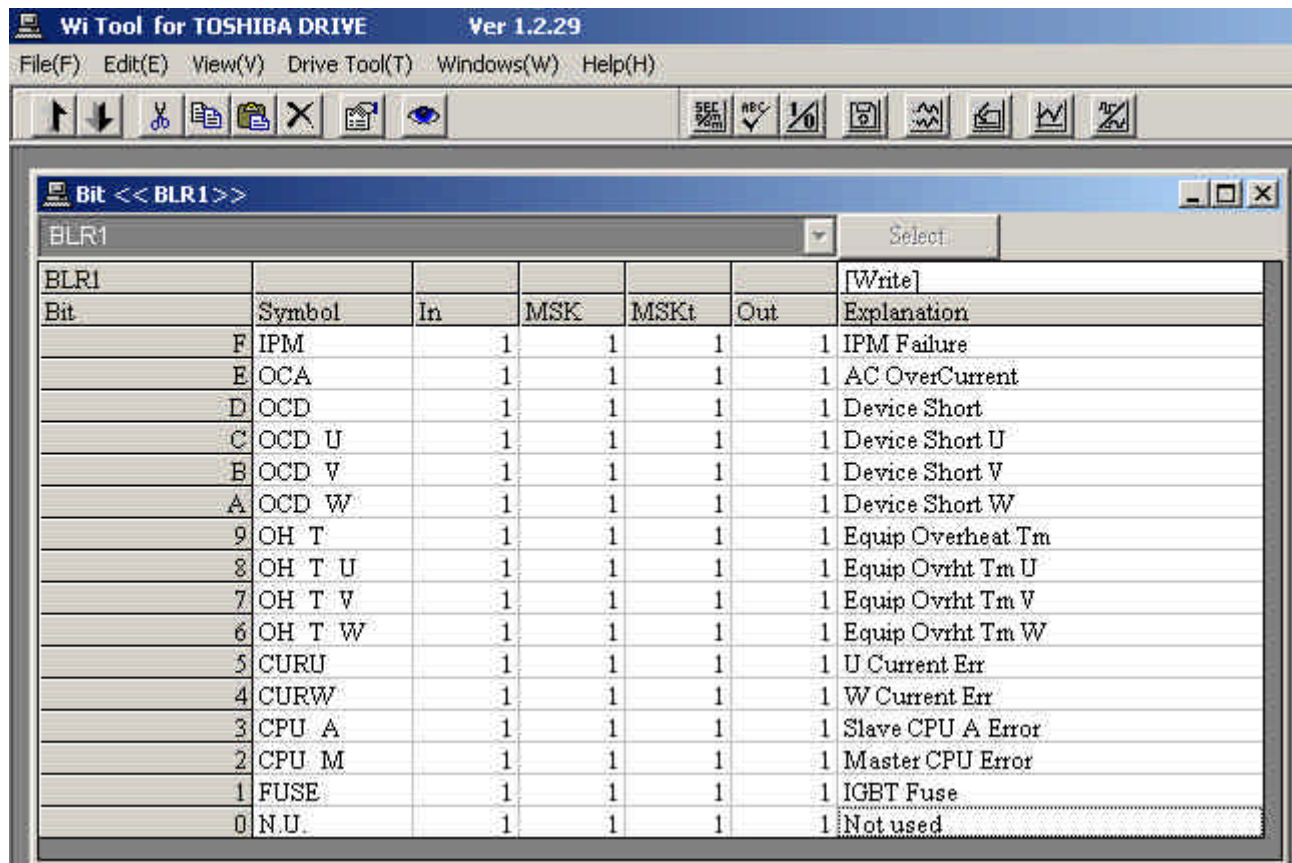
Figure 6.3.3 Bit window

The name of each bit appears on the left side and its comment appears on the right side. The bit data of the symbol registered in the computer appears as a vertical column of 16 cells at the center (If BLR1 is selected, four columns of bit data appear as shown in the window above. The number of columns depends on the selected symbol). The top cell is bit no. F and the bottom cell is bit no. 0. The number in the cell is the current data ("1", "0").

To change the rewrite data, click the cell of that bit. When clicked, the number in the cell changes to "0" if it was "1" and to "1" if it was "0".
When a cell is clicked, the following window appears.
(The following figure shows the window when the cell for bit no. E for MSK data is clicked.))
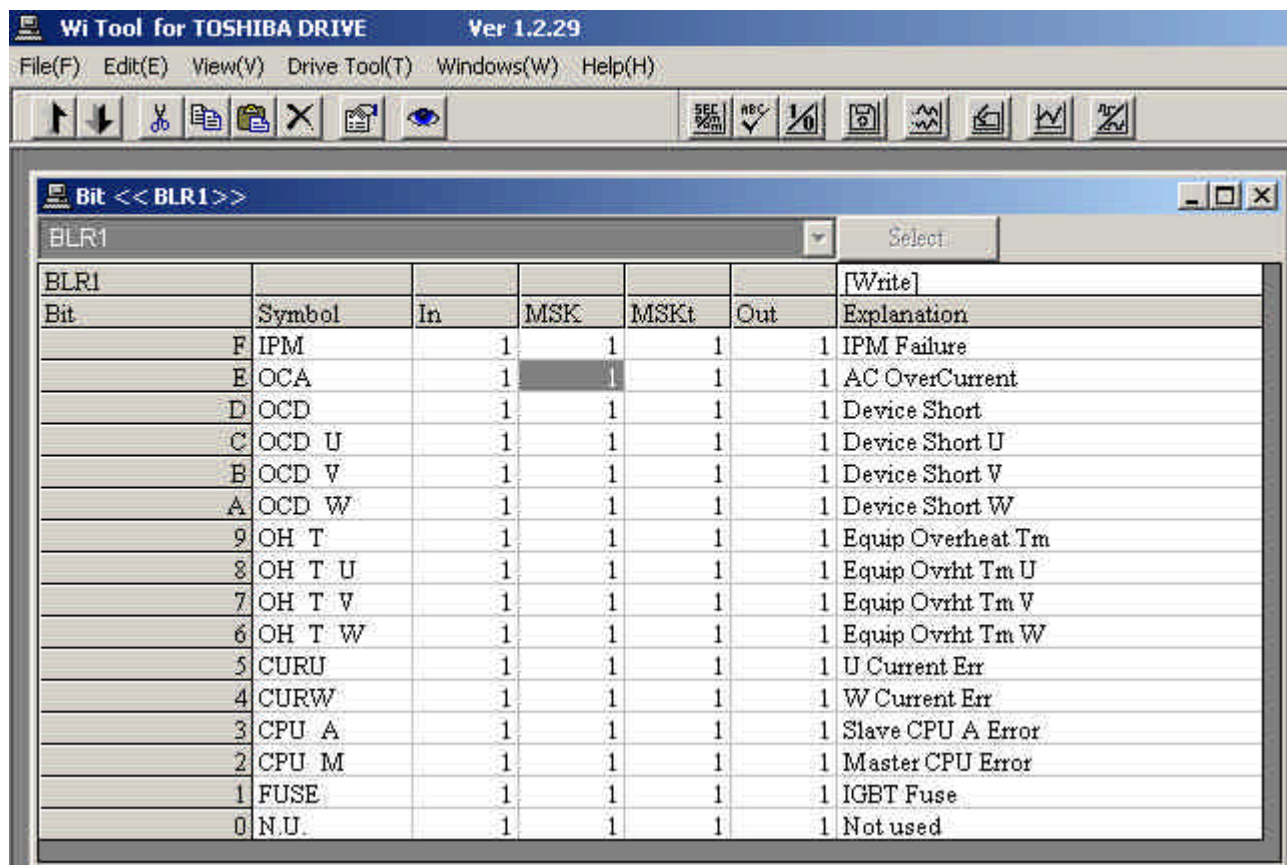
Wi Tool for TOSHIBA DRIVE Ver 1.2.29

File(F) Edit(E) View(V) Drive Tool(T) Windows(W) Help(H)

Bit << BLR1 >>

BLR1 | | | | | | Select

BLR1						[Write]
Bit	Symbol	In	MSK	MSKt	Out	Explanation
F	IPM	1	1	1	1	IPM Failure
E	OCA	1	1	1	1	AC OverCurrent
D	OCD	1	1	1	1	Device Short
C	OCD U	1	1	1	1	Device Short U
B	OCD V	1	1	1	1	Device Short V
A	OCD W	1	1	1	1	Device Short W
9	OH T	1	1	1	1	Equip Overheat Tm
8	OH T U	1	1	1	1	Equip Ovrht Tm U
7	OH T V	1	1	1	1	Equip Ovrht Tm V
6	OH T W	1	1	1	1	Equip Ovrht Tm W
5	CURU	1	1	1	1	U Current Err
4	CURW	1	1	1	1	W Current Err
3	CPU A	1	1	1	1	Slave CPU A Error
2	CPU M	1	1	1	1	Master CPU Error
1	FUSE	1	1	1	1	IGBT Fuse
0	N.U.	1	1	1	1	Not used

Figure 6.3.4 Bit Write window

When the data to write is determined, click [Write]. Then the data in the cell is written to the drive equipment. If you do not click, the data is not written.

To rewrite the data, refer to "Chapter 1 Notes on Rewriting drive equipment Data."

[6-4] Set point control detail description

This function saves set points in the drive equipment to a file or loads the data saved in file to the drive equipment and compares the set point in the drive equipment with the data saved in file. It also, transfers the set points in the drive equipment RAM to EEPROM.

Select **Drive Tool/Data Control/Setpoint Control** from the menu bar
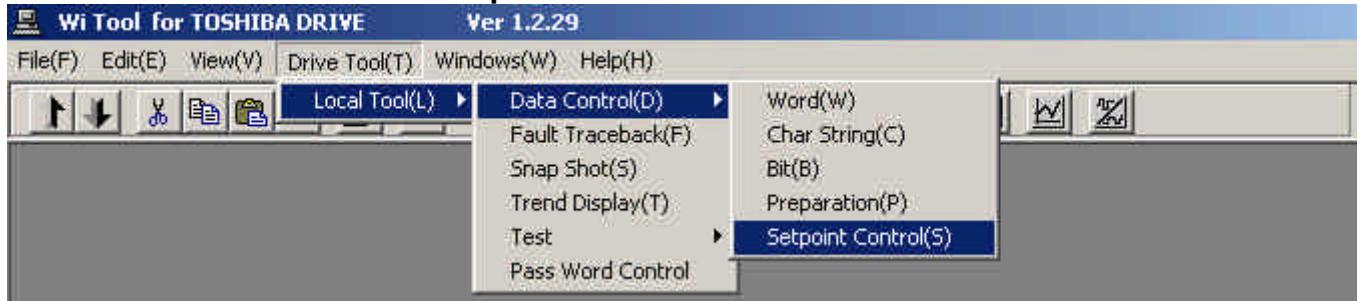
or click the command button

to select. The following window appears.

[Note]

Your access level must be 9 in order to write set points to the drive equipment.

The value in the set point file can be written to the drive equipment only when you login with access level 9 when starting *Wi Tool*.
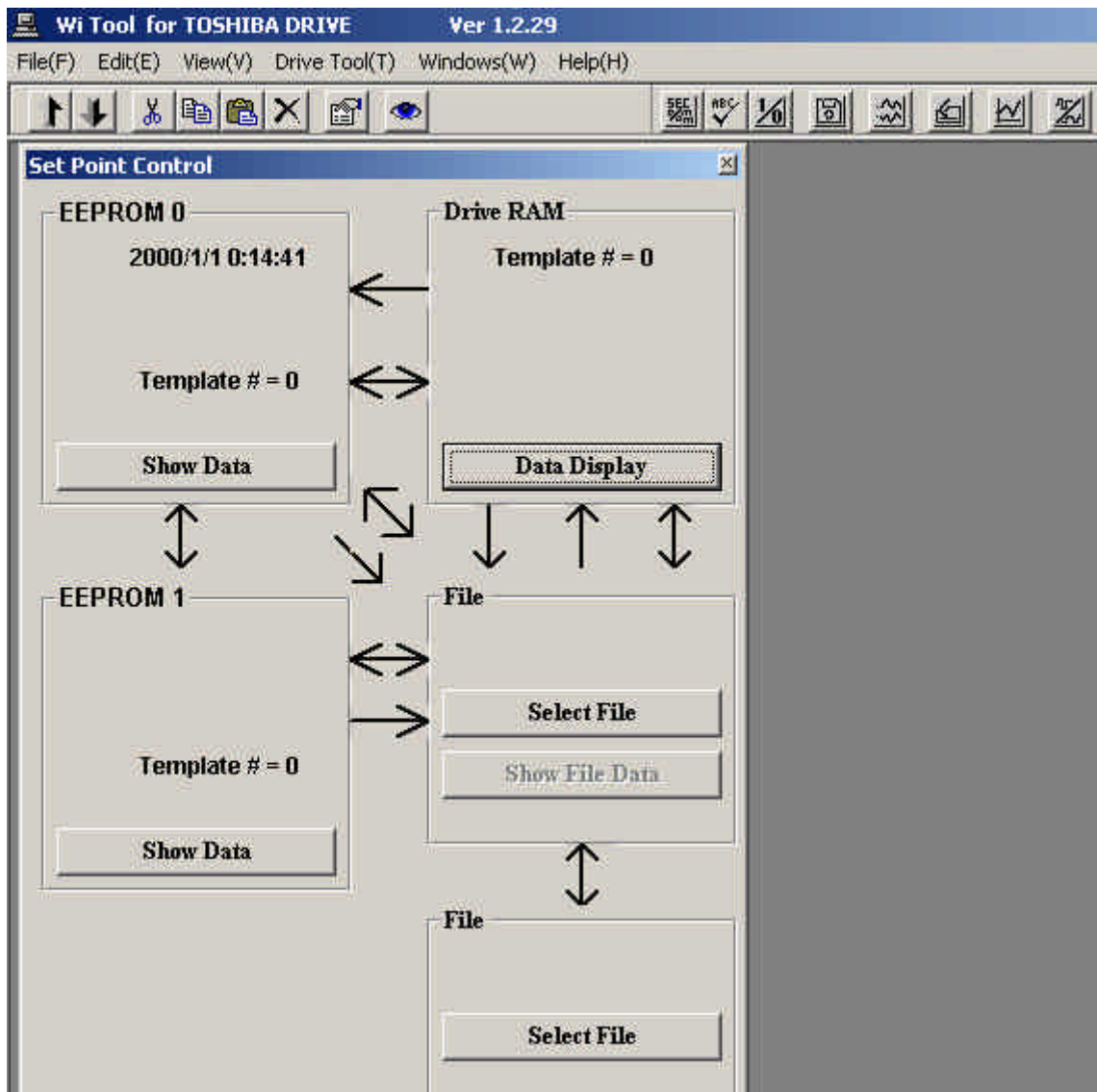
Figure 6.4.1 Set Point Control

The set points in the drive equipment are processed together.

The set points in the drive equipment are in internal RAM.
The internal RAM is saved in EEPROM because it is erased when the power is turned off.
(Normally EEPROM0 is used.)
When the drive equipment power is turned on, the set points in EEPROM are copied to internal RAM.
When a value in internal RAM is changed (when set point is rewritten or the set point file is written in the drive equipment), the data in internal RAM must be transferred to EEPROM.

The main functions are:

1) Display set points in drive equipment internal RAM
2) Display set points in drive equipment EEPROM
3) Display set point file
4) Compare drive equipment internal RAM with EEPROM
5) Compare drive equipment internal RAM with set point file
6) Compare drive equipment EEPROM with set point file
7) Transfer set points in drive equipment RAM to EEPROM
8) Write data in drive equipment internal RAM to set point file
9) Write data in drive equipment internal EEPROM to set point file
10) Load set point file to drive equipment internal RAM
11) Compare set point file with set point file
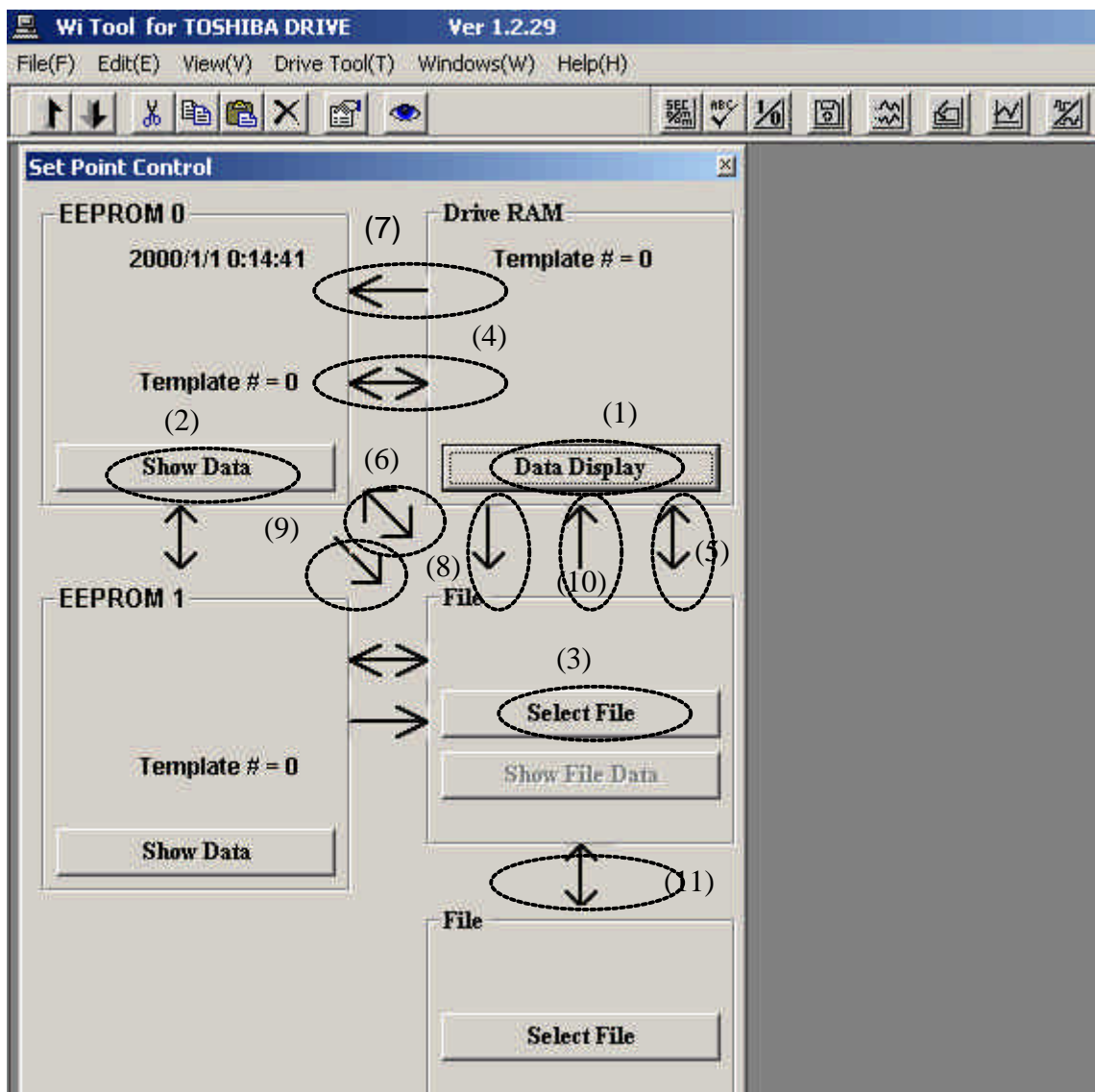
Figure 6.4.2 Set Point Control

These functions are described below.
1) Display set points in drive equipment internal RAM
Click the **Data Display** button (1).
Set point data is read from the drive equipment and displayed as follows:
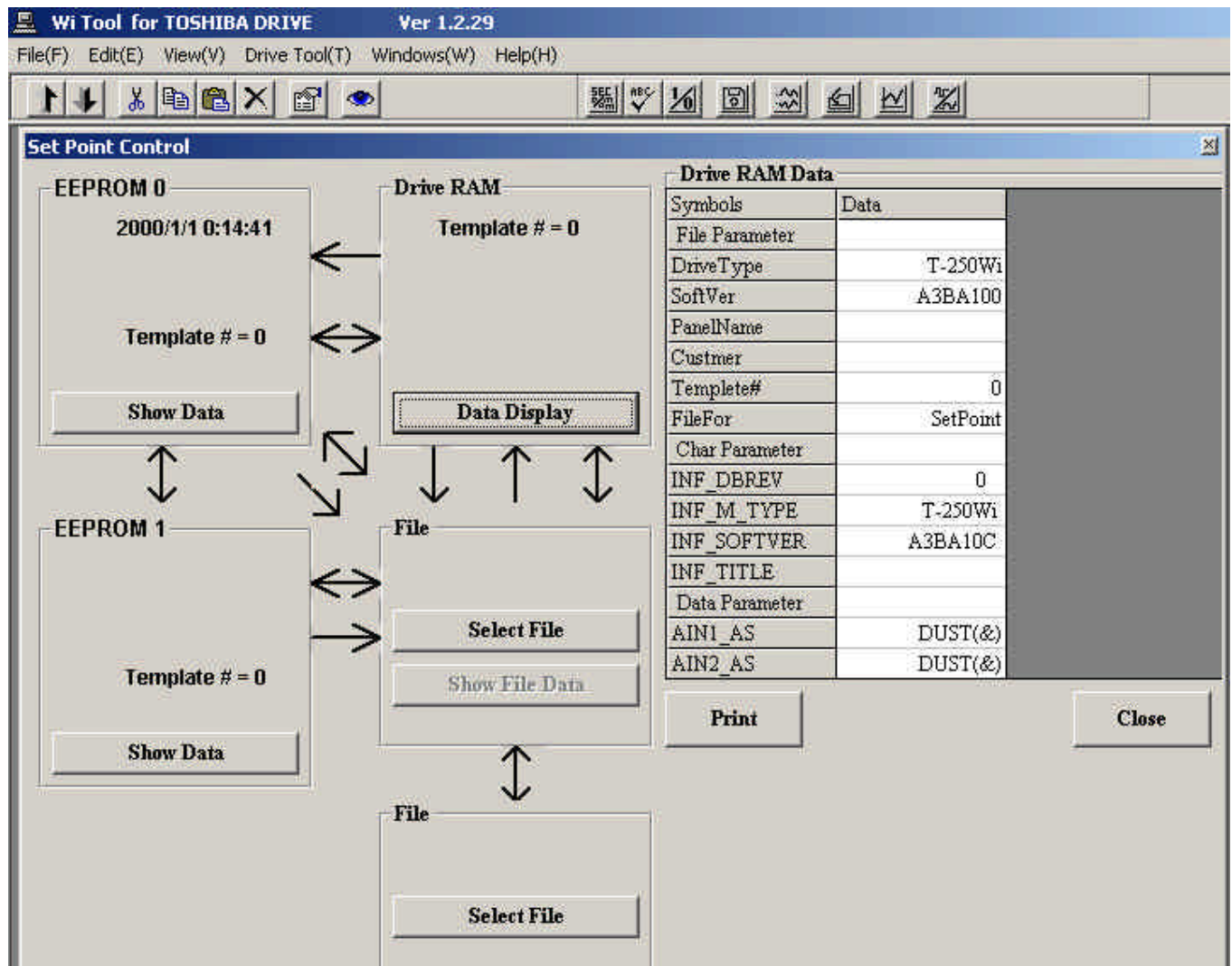
Figure 6.4.3 RAM display

In *Wi Tool*, some representative set points are maintained as template and the actual set points of the drive equipment are referenced as the difference from the number of this template and the template.
In the above example, the template number is 0 and the values different from this template appear below.

You can print this data by clicking Print.

2) Display set points in drive equipment EEPROM
Click the **Data Display** button (2).
Set point data is read from the drive equipment and displayed.

3) Display set point file
Click the **Select File** button (3).
Select a set point file and then click **Show File Data** below button (3).
The content of the file is displayed.

4) Compare drive equipment internal RAM with EEPROM
   Click arrow (4).
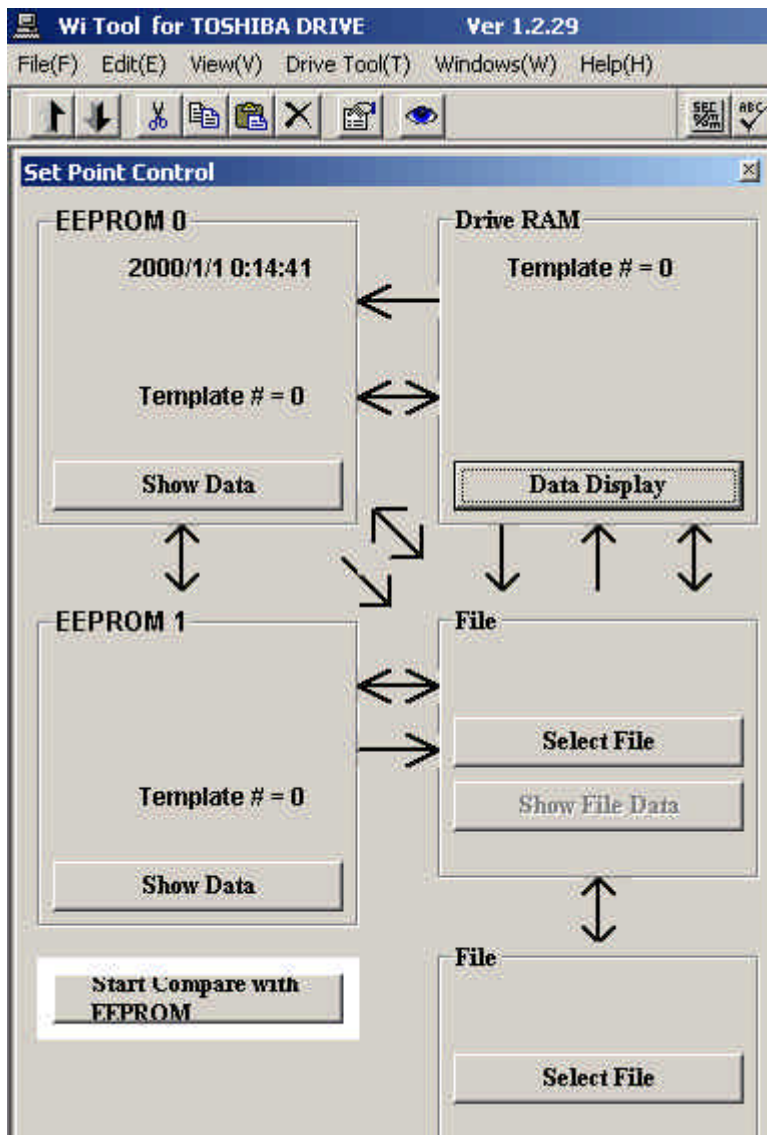
Figure 6.4.4

The **Start Compare with EEPROM** button appears at bottom left of the window. Click this to start compare and display the result.
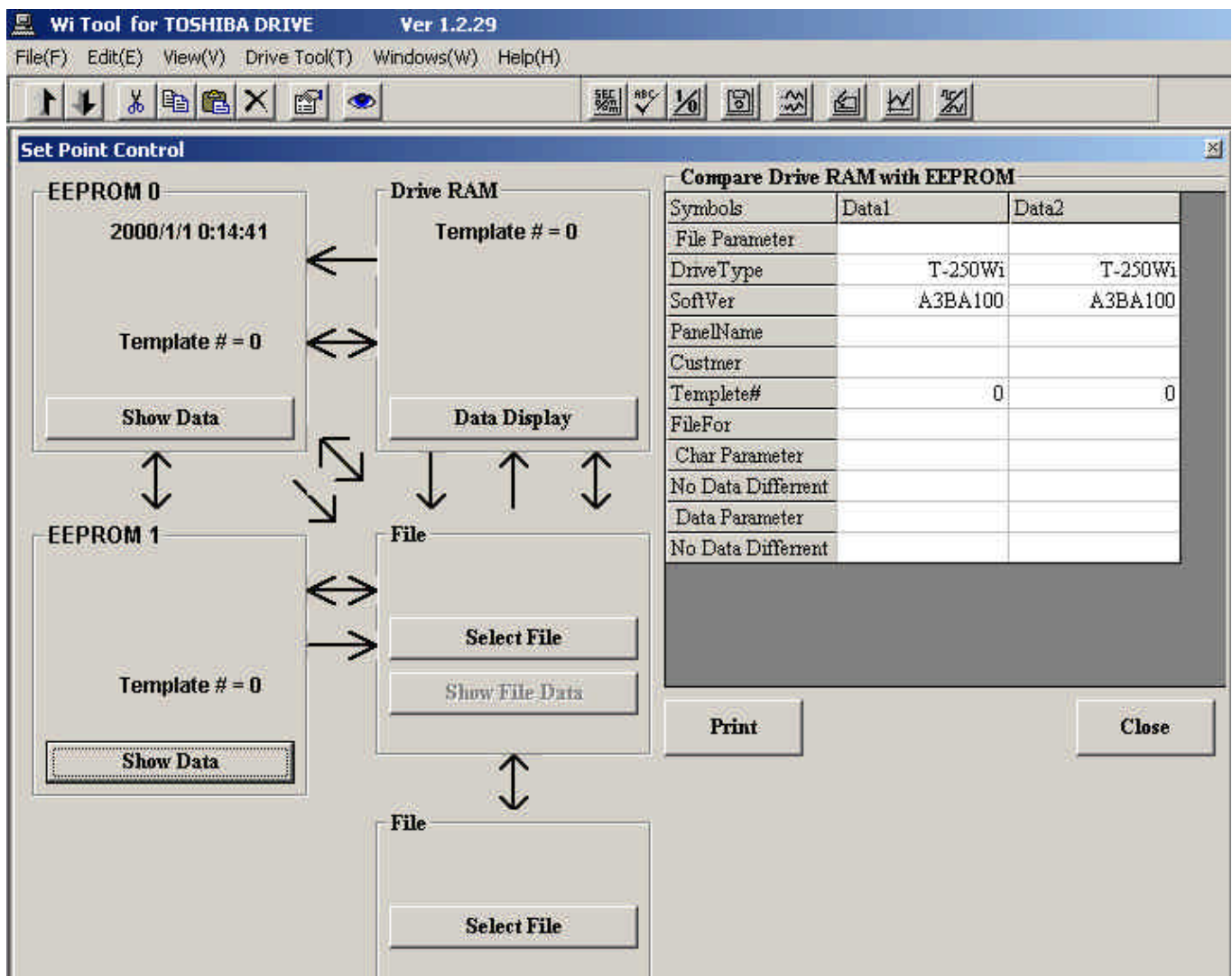
Figure 6.4.5 Set Point Compare

5) Compare drive equipment internal RAM with set point file
First, select a set point file. Click the **Select File** (3) button and select a set point file.
Then click arrow (5) to display the **Compare File** button at bottom left of the screen and click this button to start compare.
The result is displayed when compare is finished.

6) Compare drive equipment EEPROM with set point file
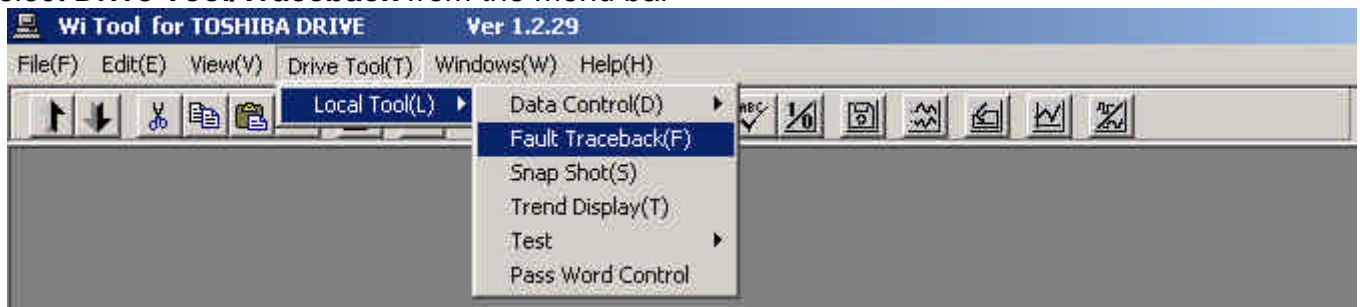First, select a set point file. Click the **Select File** (3) button and select a set point file.
Then click arrow (6) to display the **Start Compare with EEPROM** button at bottom left of the screen and click this button to start compare.
The result is displayed when compare is finished.

7) Transfer set points in drive equipment RAM to EEPROM
Click arrow (7) to display the following window.
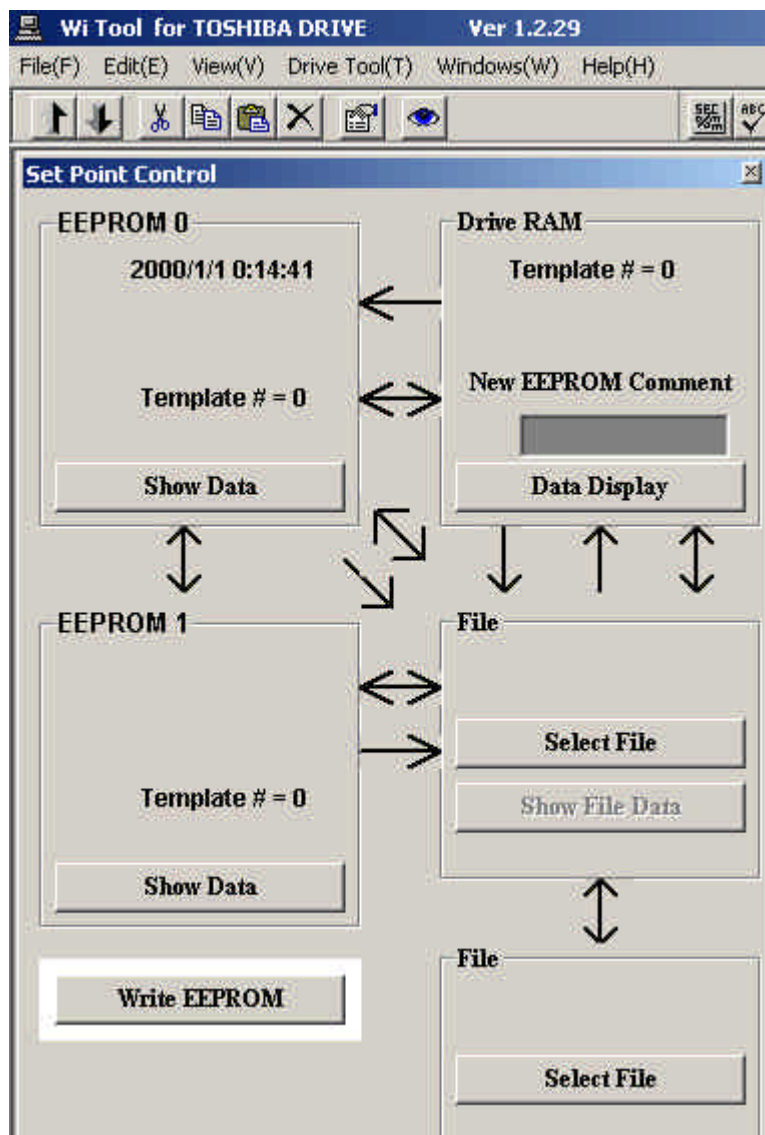
Figure 6.4.6 Write EEPROM

A new EEPROM comment appears. Enter the comment (up to 32 characters) to write in EEPROM and then click the **Write EEPROM** button that appears at bottom left of the window to start transfer to EEPROM.

8) Write data in drive equipment internal RAM to set point file
First, select a set point file. Click the **Select File** (3) button and select a set point file.
Then click arrow (8) to display the **Save to File** button at bottom left of the screen and click this button to start write to file.

9) Write data in drive equipment internal EEPROM to set point file
First, select a set point file. Click the **Select File** (3) button and select a set point file.
Then click arrow (9) to display the **Save EEPROM** button at bottom left of the screen and click this button to start write to file.

10) Load set point file to drive equipment internal RAM

First, select a set point file. Click the **Select File** (3) button and select a set point file.

Then click arrow (10) to display the **Load from File** button at bottom left of the screen and click this button to start load to file.

11) Compare set point file with set point file

First, select the first set point file. Click the **Select File** (3) button and select a set point file.

Then select the second set point file. Click the **Select File** button below arrow (11) and select a set point file.

Then click arrow (11) to display the **Compare File** button at bottom left of the screen and click this button to start compare.

[6-5] Traceback detail description

Reads, displays as graph, prints, and saves to file the control data (motor speed, motor current, etc.) when there is a drive equipment fault.

Select **Drive Tool/Traceback** from the menu bar

or click the command button

to select. The following window appears.
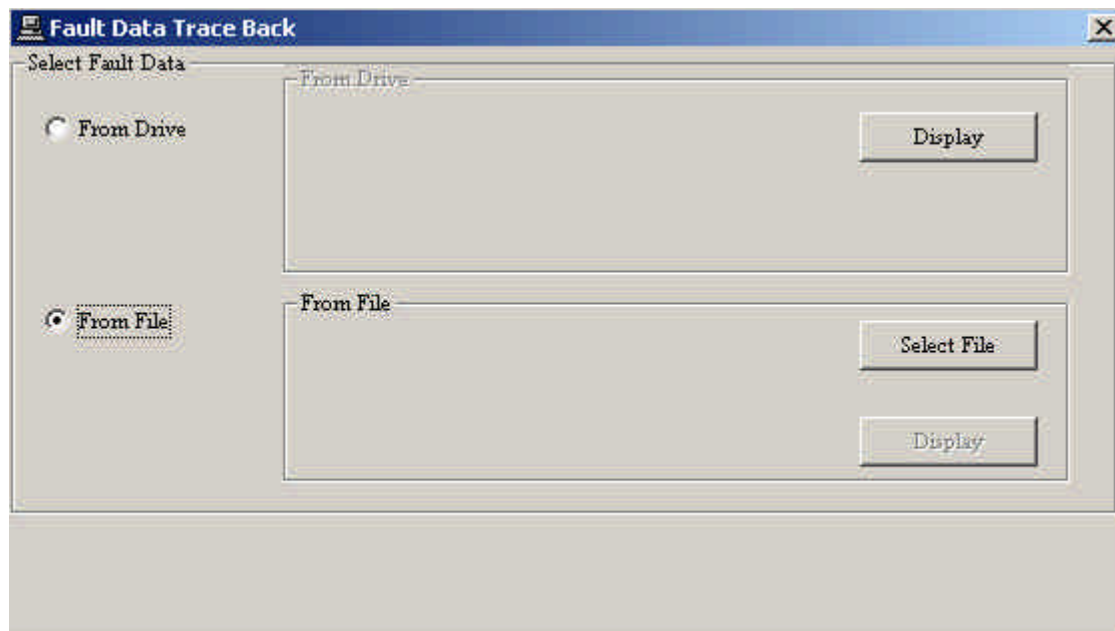
Figure 6.1.5 Traceback selection

First, select where the fault data is read from.
Click **From Drive** or **From File** to select.
To read from file, click **Select File** and select a file from the list.
The following window appears if **From Drive** is clicked.
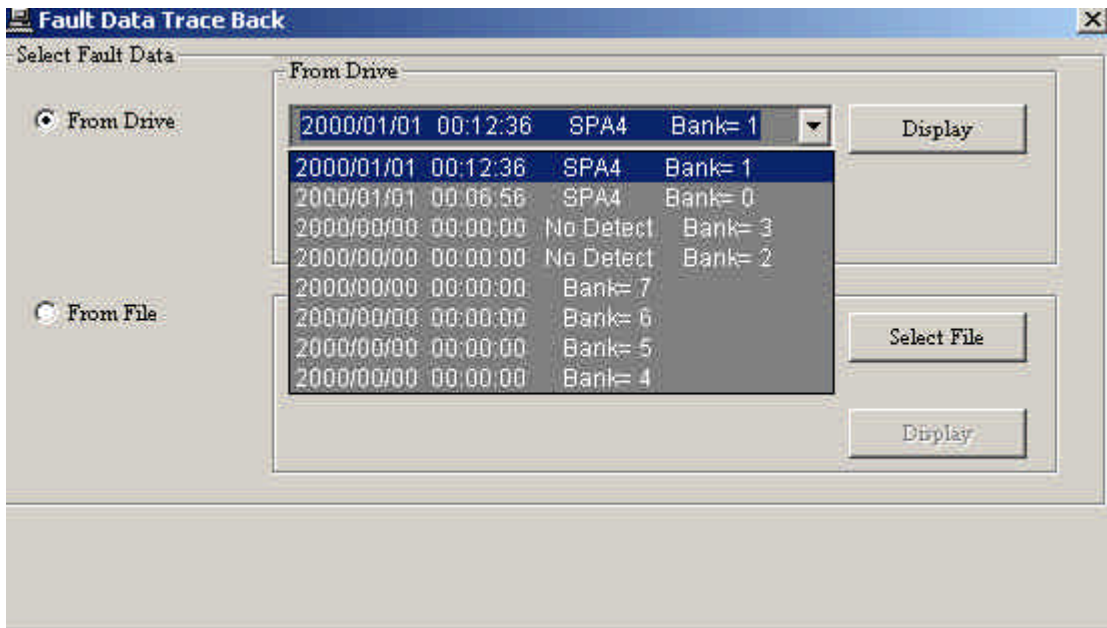
Figure 6.5.2 Fault selection

This list contains a list of fault data in the drive equipment. (Up to 16 faults) Click the down arrow to display the data list and click an item to select.

Then click the **Display** button.

The data is read and displayed as graph.
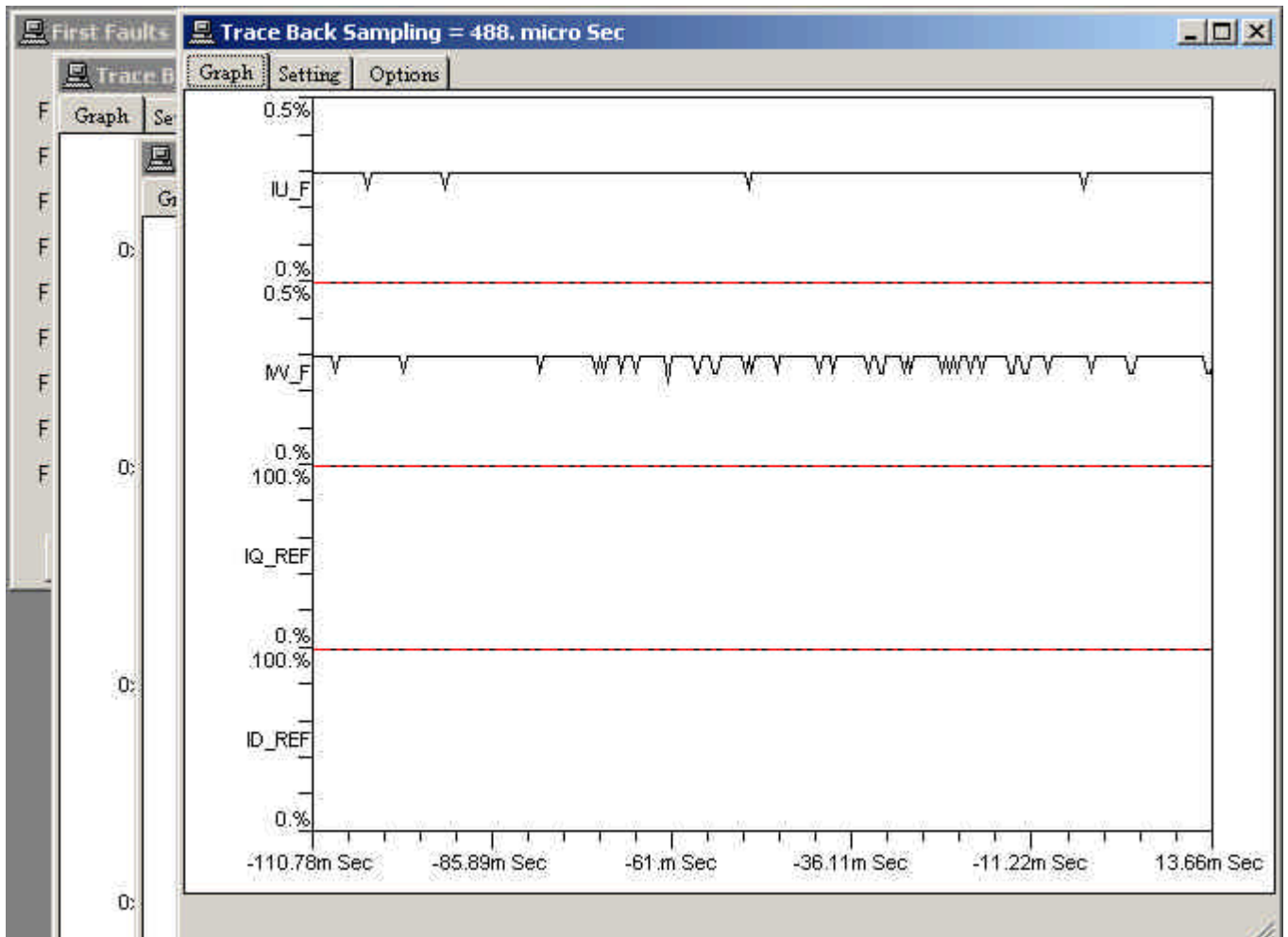
Figure 6.5.3 Traceback window

When data read completes, a graph similar to the one above appears.
Control data is obtained with different sampling data depending on the drive equipment and a graph is displayed for each sampling data.
Click the **Option** tab on the graph to display the following window.
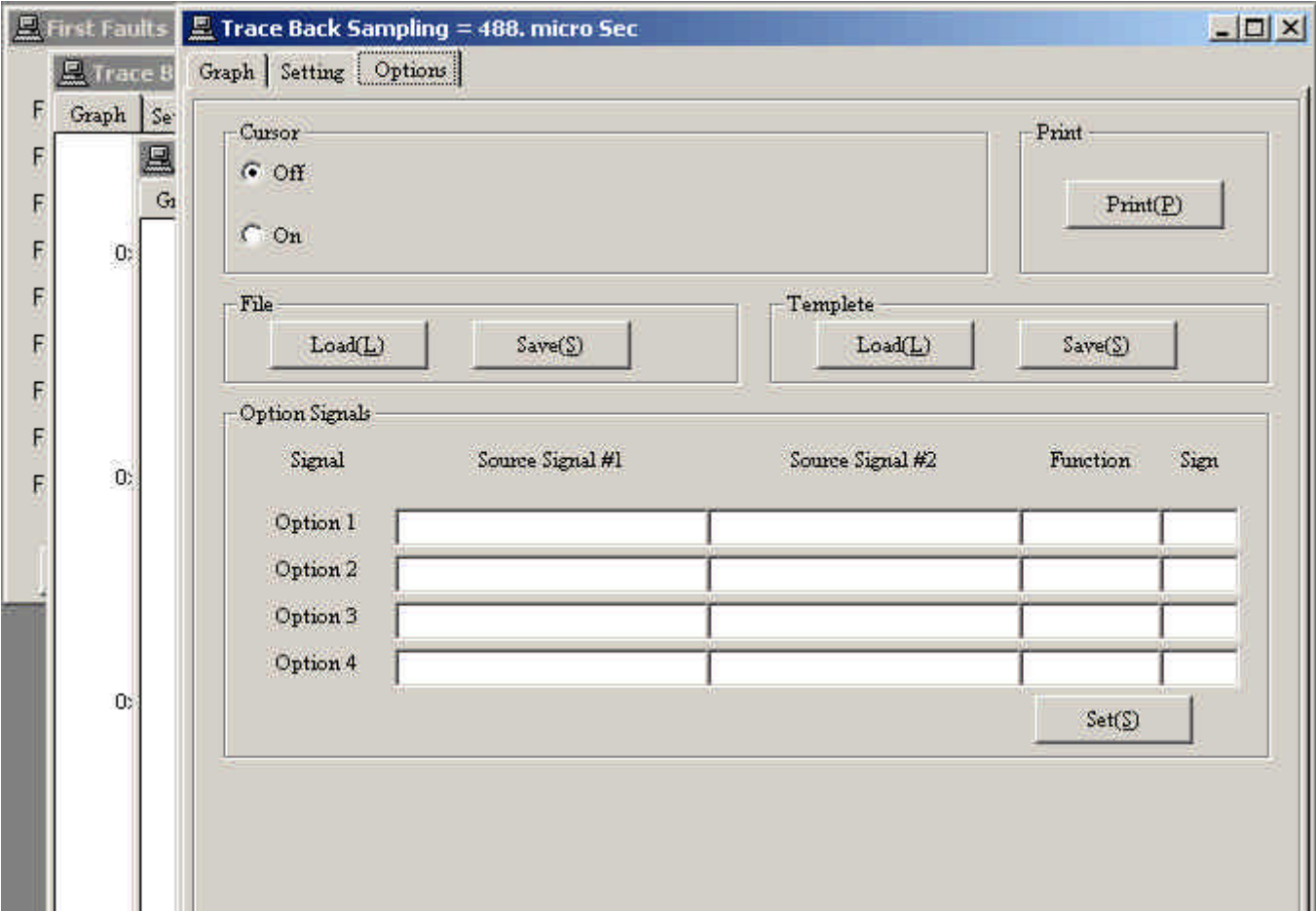
Figure 6.5.4 Traceback print

Then click the **Write** button to save this data to file with the specified file name. You can also click the **Print** button to print this data.

In addition to the graph, the detected fault signals (first faults) are also displayed.
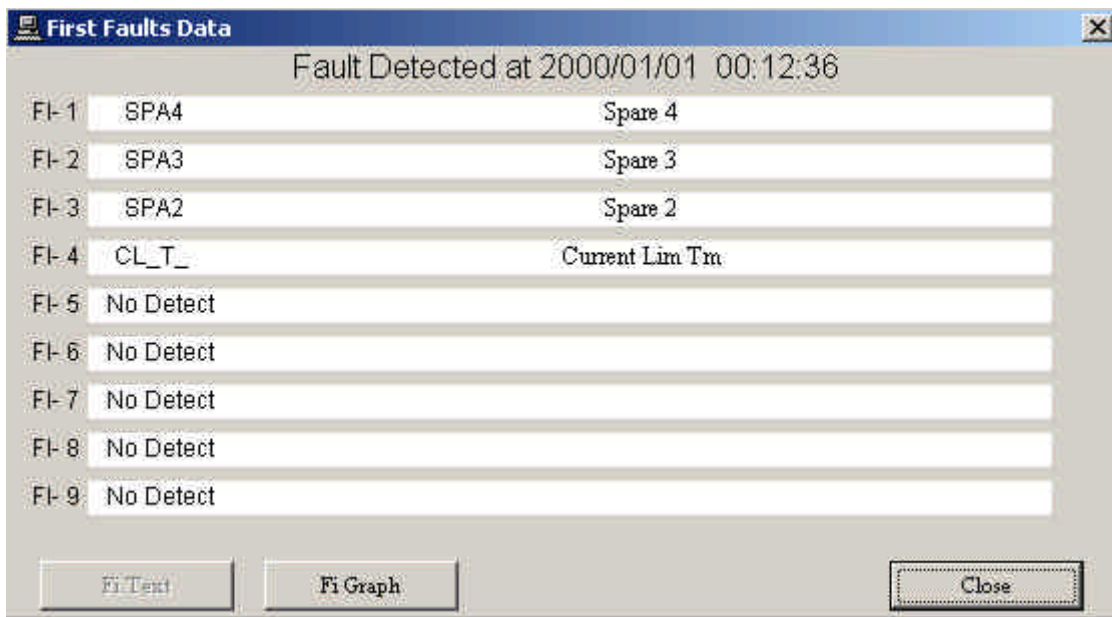
Figure 6.5.5 First faults

The First Faults window shows the sequence data for up to 9 faults in the order of detection. The sequence signal abbreviation appears on the left and a simple description appears on the right.

A more detailed description appears when you click the abbreviation or the description.

Next, click the **Setting** tab on the graph to change the graph settings.
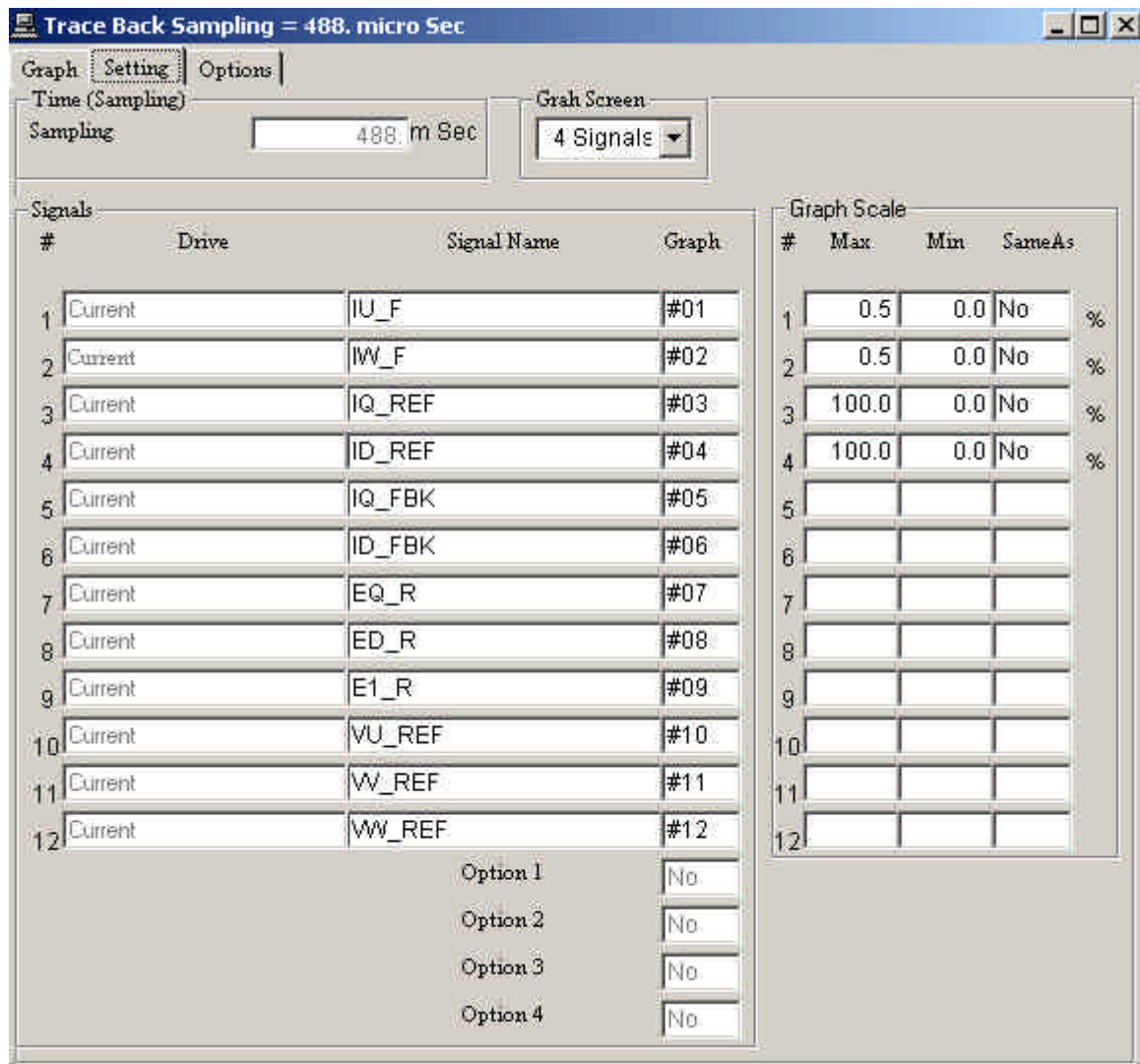
Figure 6.5.6 Select traceback signal

1) The number at top center is the number of graphs per window.
You can select 1, 2, 4, 8, or 12 signals per window.
2) The Signal name displayed on the graph appears on the left side.
Click a signal name to change it.
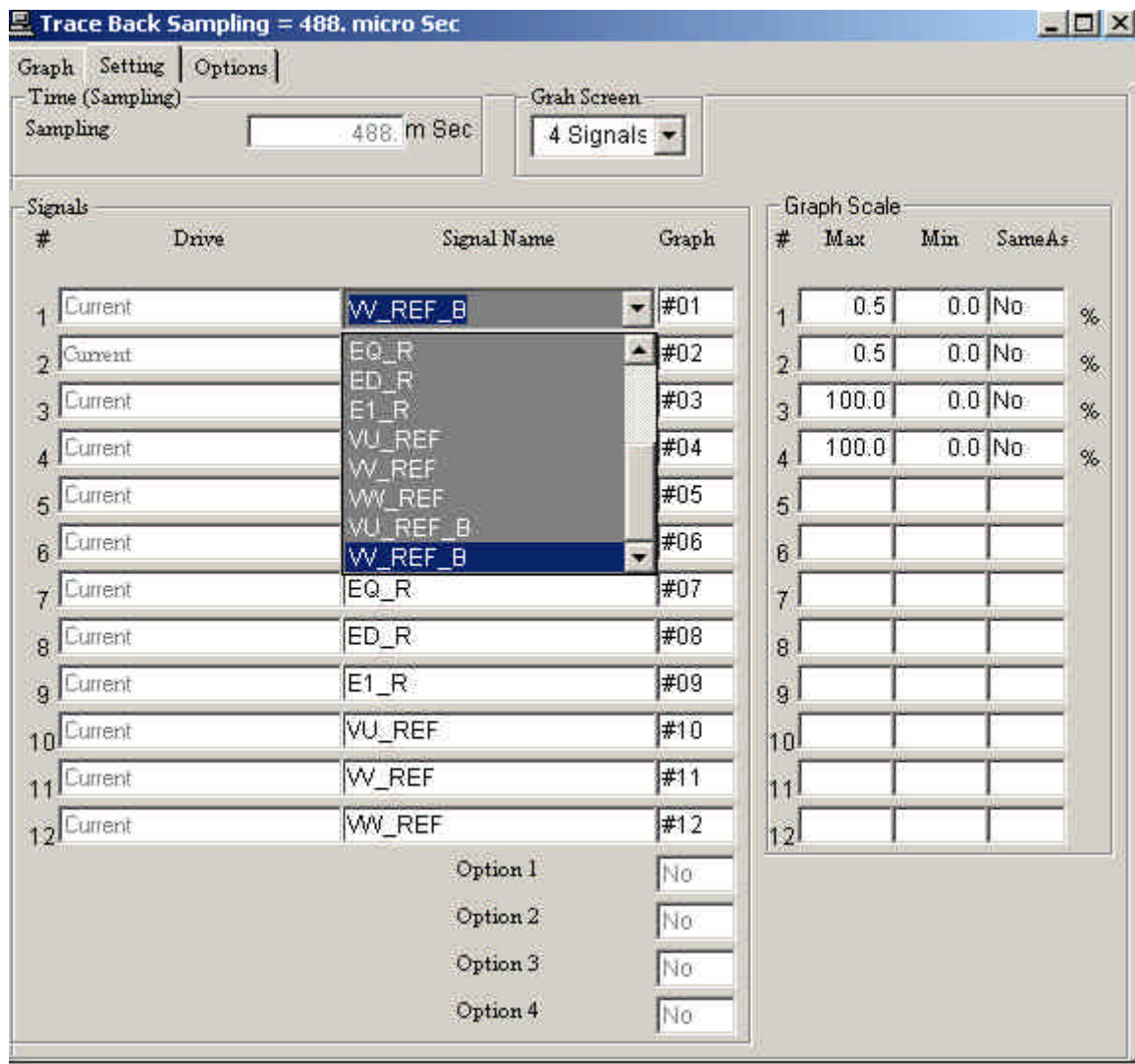
Figure 6.5.7 Select Signal

The names of signals that can be displayed as graph appears as a list. Click one of the signal names in the list.
Then double click to confirm the signal name.
The number on the right of the signal name is the graph no. Specify the display order from top of the window for the selected signal. If more than one signal are set to display in the graph with the same number, multiple signals are displayed.

3) Set the scale of the graph on the left side.
Set each graph to **Max**imum or **Min**imum.
To set to the same scale as another graph, specify its graph number in the **SameAs** field.

[6-6] Snapshot detail description

This function controls the data record function of the drive equipment which specifies a trigger condition and saves the specified signal.

The difference with traceback described above is that whereas the trigger condition of traceback is limited to faults, the user can set the trigger condition freely with snapshot. Also there is a difference in the number of saved signals (up to 60 signals for traceback and 8 signals for snapshot) and the number of samples that can be saved (up to 512 samples for traceback and up to 1024 signals for snapshot).

Select **Drive Tool/Local Tool/Snap Shot** from the menu bar
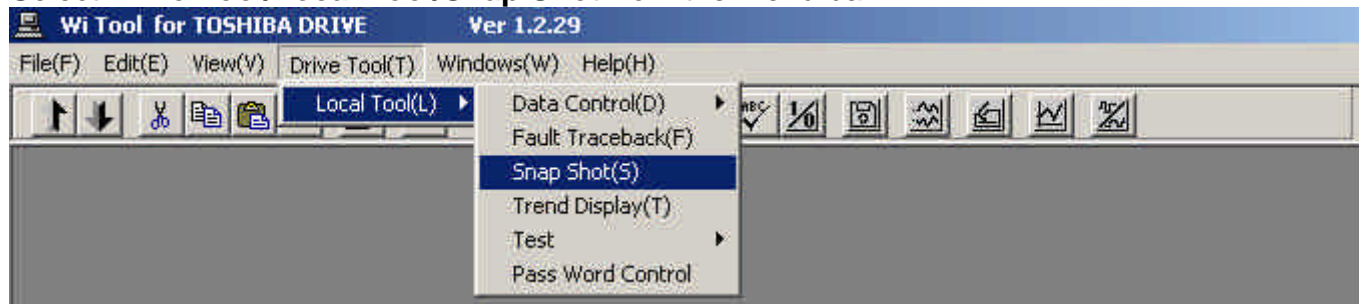
or click the command button

to select. The following window appears.
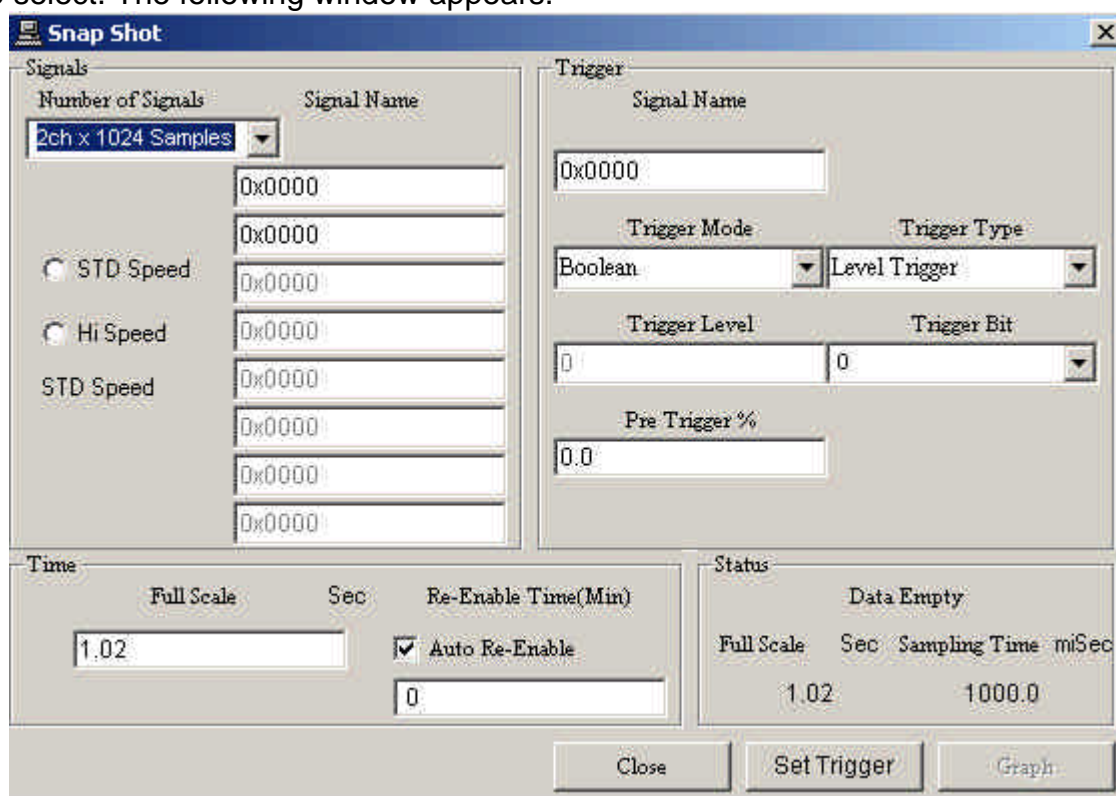
Figure 6.6.1 Snapshot

Set the snapshot condition in this window.
1) **Number of Signals**: Specify the number of signals to save.
For snapshot, you can select from
     2 signals 1024 samples

     4 signals 512 samples
     8 signals 256 samples

2) **Signal Name**: Specify the saved signal name.
Click a signal name to display a list of selectable signal names.
Then select a name from the list and double click to confirm.

3) Select Hi Speed/STD Speed sampling time
Click **STD Speed** to select standard sampling speed
Click **Hi Speed** to select High sampling speed
Normally, select standard sampling (1mSec).
With high speed sampling, there is a restriction on the selectable signal names.
Whether standard sampling or high speed sampling is currently selected is displayed below.

4) Trigger condition
In the window on the previous page, trigger conditions where:
   (1) Trigger signal 0x0000
   (2) Trigger mode Boolean
   (3) Trigger type Level Trigger
   (4) Trigger bit "0"
   (5) Pre-trigger "0"
 In other words data save start when there is a level trigger with the 0th bit of signal 0x0000 set to 1.

The following trigger modes are available:
Trigger when Boolean bit signal is 1 (specify the bit with the trigger bit)
Trigger when Inverted Boolean bit signal is 0 (specify the bit with the trigger bit)
Trigger when "equal" signal is at trigger level
Trigger when "Not equal" signal is different from trigger level
Trigger when "Greater Than" signal is greater than trigger level
Trigger when "Less Than" signal is less than trigger level

The following trigger types are available:
Trigger when edge trigger signal changes
Trigger at level trigger signal level

Setting the time
Set to full scale (time from end to end of the window).
Also set the re-enable time. Re-enable time is the time until trigger becomes ready after there is a trigger. (Normally, this is not used. To use, check **Re-Enable**.)

Status display
Displays the current status.
(1) Data Empty: Status when there is no data.
(2) Data Triggered: Triggered status.
(3) Trigger Ready: Waiting for a trigger.

Normally, the trigger condition and signal name are set during Data Empty status and the **Set Trigger** button is clicked to enter the Trigger Ready status. The button becomes **Reset Trigger**.
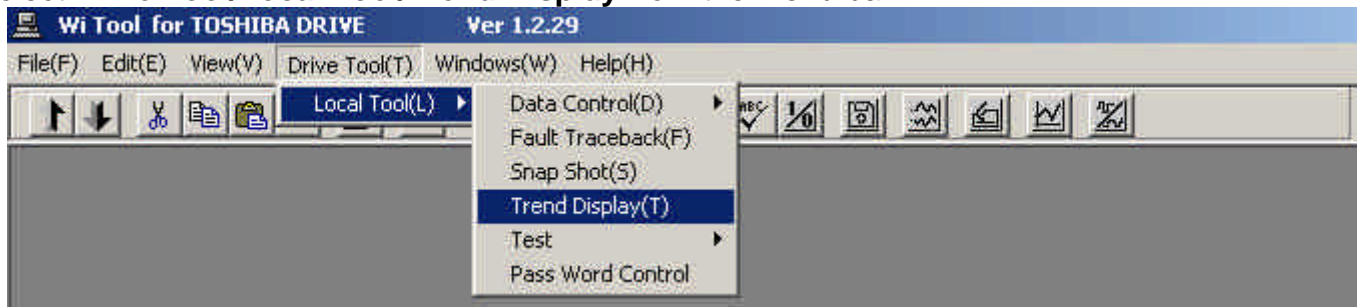
When there is a trigger, the status becomes Data Triggered and the **Display** button is enabled.
At this point, click the **Display** button to display the graph.

[6-7] Trend view detail description
This function collects drive equipment data from the PC and displays them on the PC.

Select **Drive Tool/Local Tool/Trend Display** from the menu bar

or click the command button
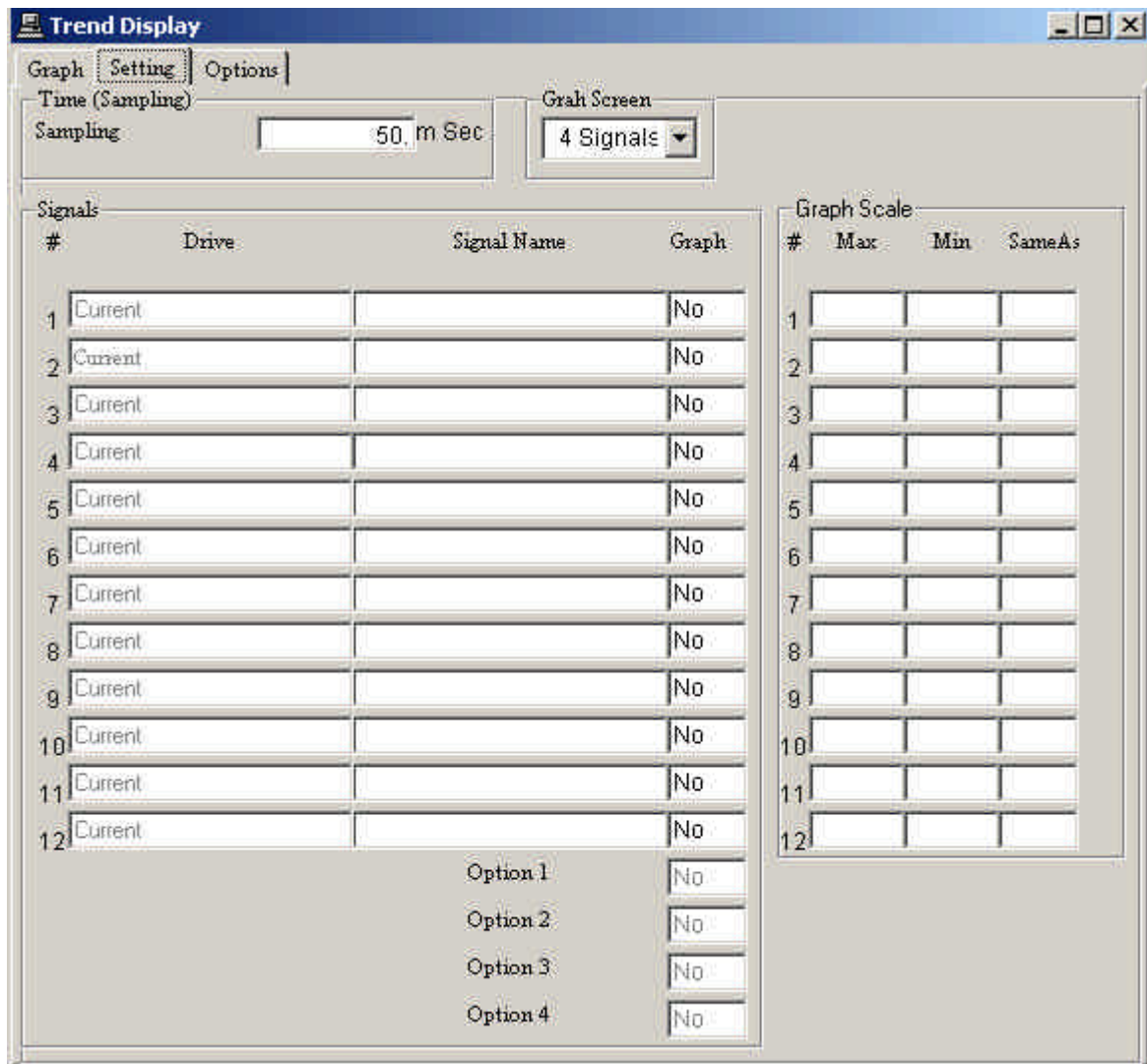

to select. The following window appears.

Figure 6.7.1 Trend setup window

This window is similar to the traceback graph. However, in the case of Trend Display, the user must specify the signal to display.

Also, the user must set the graph scale. In addition, the sampling time must be set in Trend Display. (Minimum is 50mSec.)

Set these items and click the **Graph** tab to display the following window.
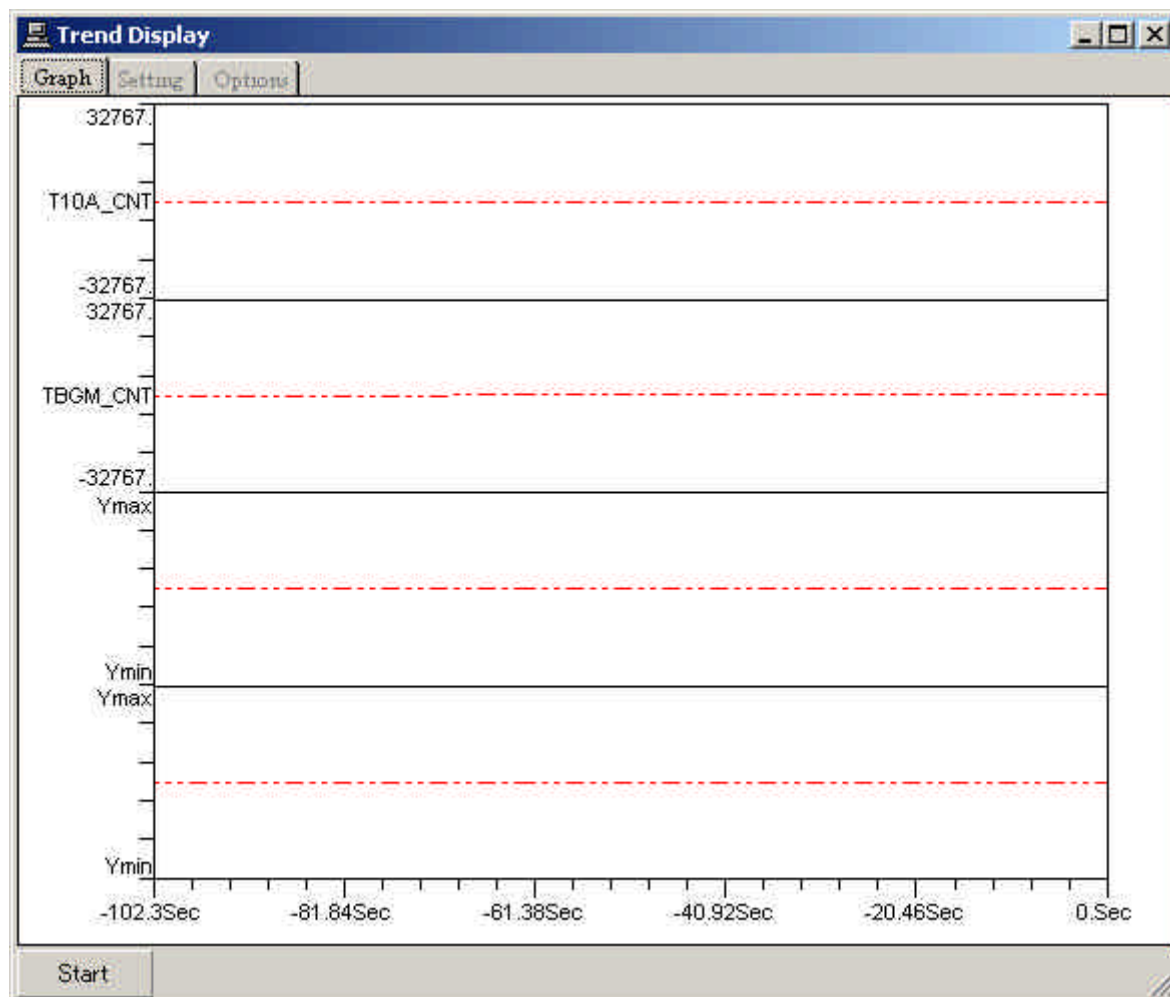
Figure 6.7.2 Trend graph

There is a **Start** button at bottom left of the graph.

Click this button to start the Trend Display.

Click the same button to stop the graph display (button is changed to **Stop**).

When clicking the **Setting** tab once more, to change the signal to display for example, stop the graph display before clicking.

[6-8] Step response detail description

This function provides step reference for test to drive equipment from PC, starts step response, and displays/prints this data. It also, saves data during step response to file and prints/displays data in the file.

Select **Drive Tool/Local Tool/Test/Step Response** from the menu bar
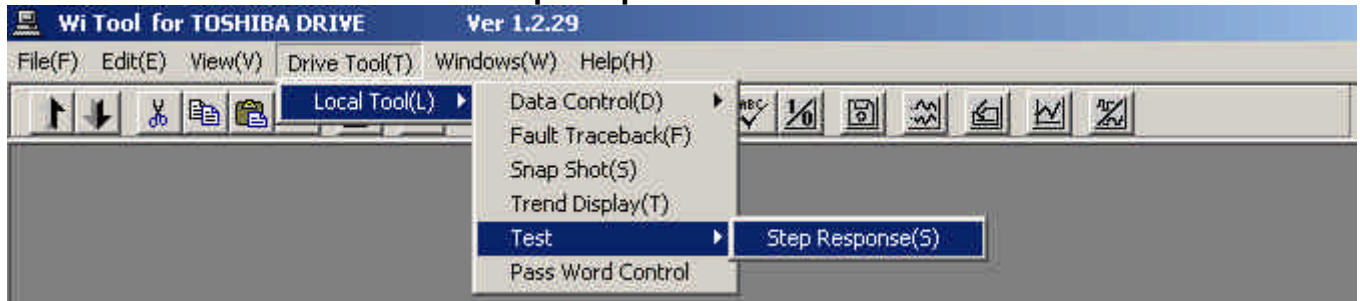
or click the command button

to select. The following window appears.
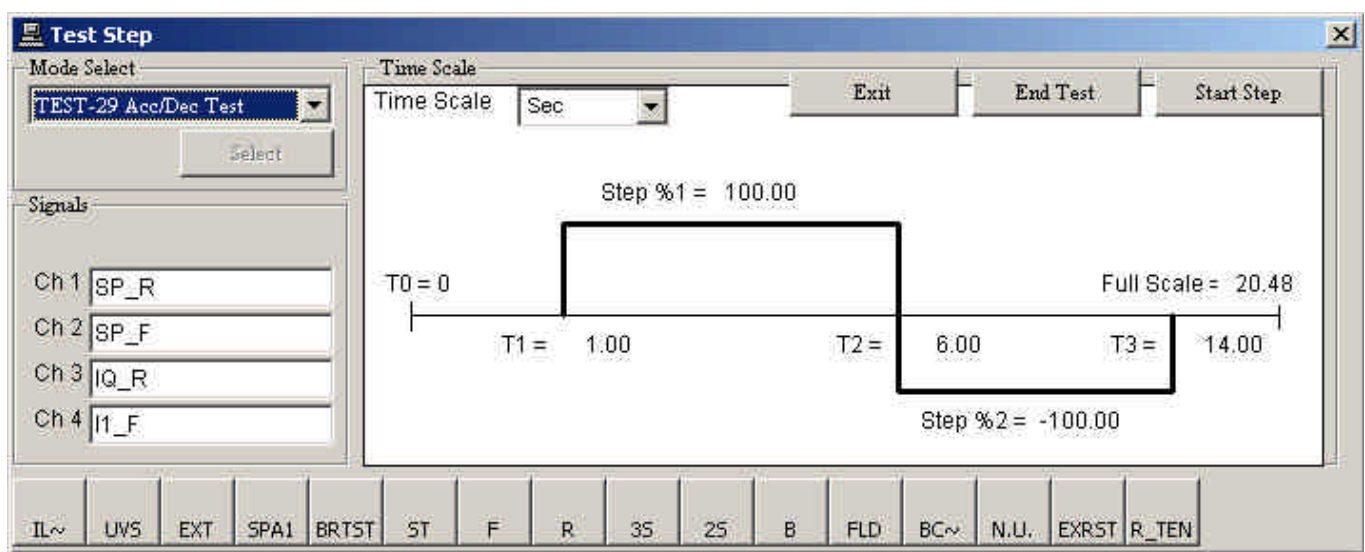
Figure 6.8.1 Step response

First, determine which test mode to select.
Click the **Mode Select** down arrow and select a mode.
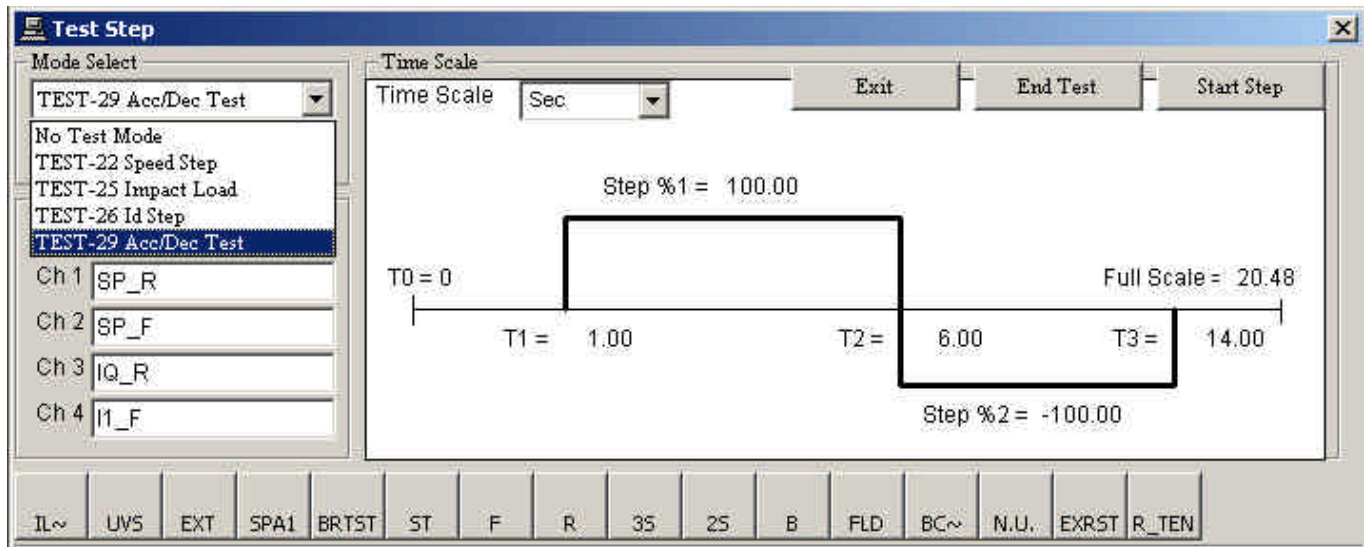
Figure 6.8.2 Select Test Mode

If the drive equipment is already in test mode as in the window on the previous page, the **Select** button is disabled. To cancel test mode, click the **End Test** button.

After selecting the test mode, click the **Start Step** button to automatically add step reference to the drive equipment and display the resulting graph.
The time width and size of the applied step are set at the right side of the window.

[6-9] Password control detail description

This function adds/deletes User Name, Access Level, and Password recorded in the drive equipment. This window opens only when the access level is 9.

Select **Drive Tool/Local Tool/PassWord Control** from the menu bar
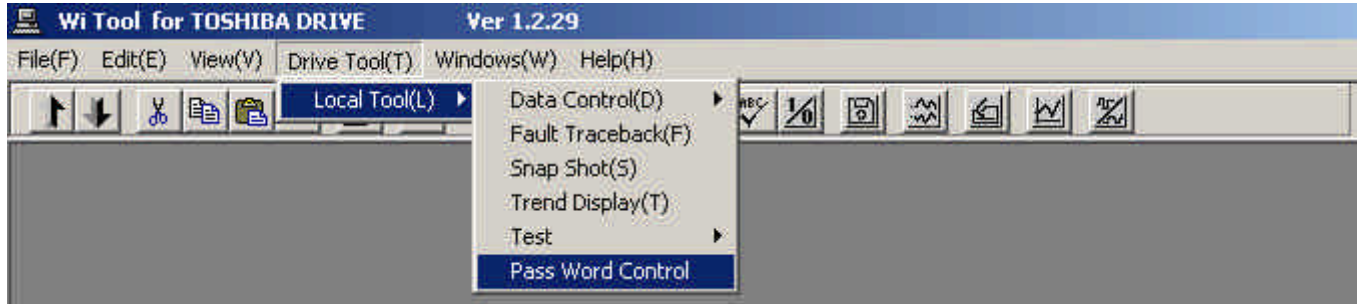
to select. The following window appears.

Figure 6.9.1 Password control

First, enter the operator name to add or delete.
When deleting, select from a list of operator names stored in the drive equipment. When adding, enter an operator name that is different from any operator name in the list.

Then enter the password and security level if entering an operator name. These are not necessary when deleting.

Click the **Add** or **Delete** button to display the following window.
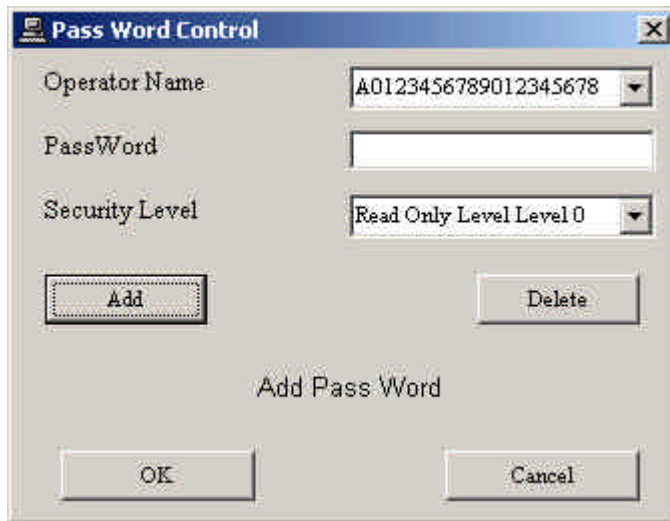
Figure 6.9.2 Password control verification

Click OK to execute.
Note that if you delete all operators with security level 9, you will not be able to add passwords.

[6-10] Property detail description

This function displays and updates information in the drive equipment. The target data are, Panel Name, Toshiba Order No., Toshiba Item No., and drive internal clock data.

Select **File/Property** from the menu bar
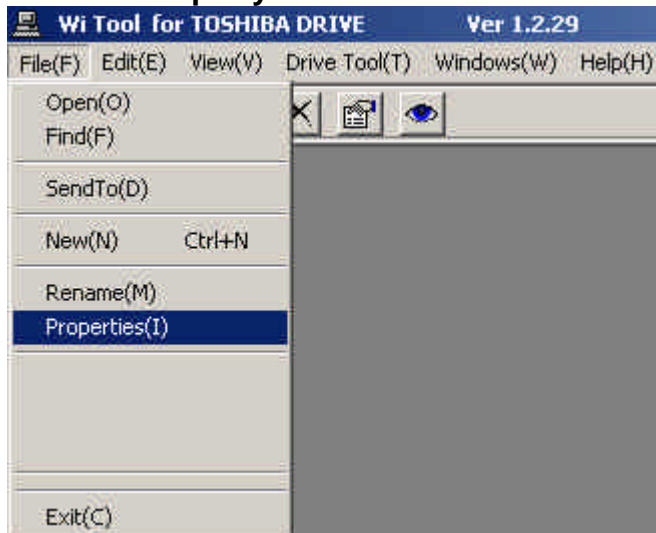
or click the command button

to select. The following window appears.
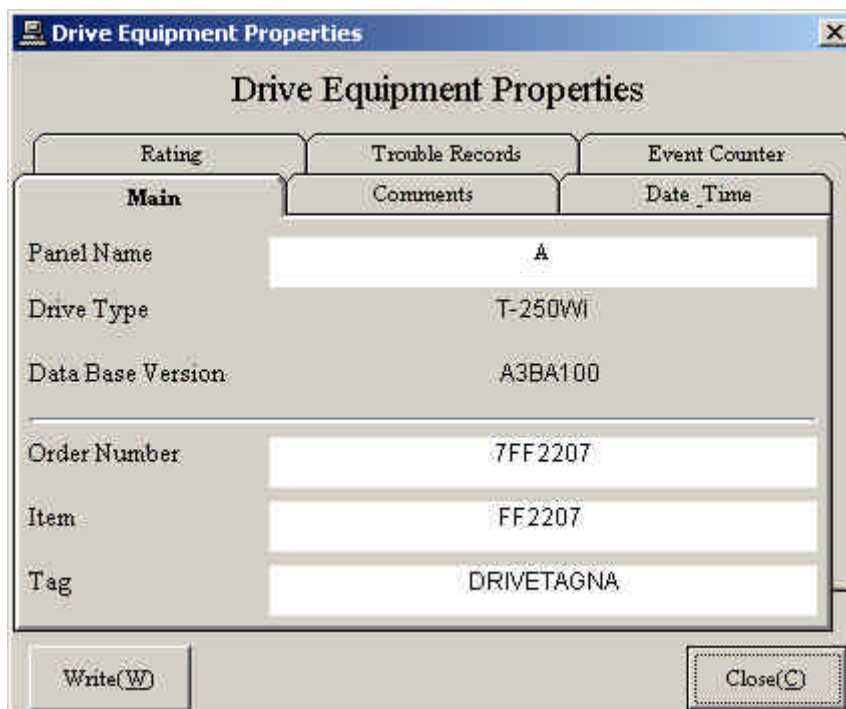
Figure 6.10.1 Drive property

This window displays the Panel Name, Drive Type, Data Base Version, Toshiba Order Number, Item Number, and Tag of the drive equipment. The Panel Name, Toshiba Order Number, Item Number, and Tag are rewritable. To rewrite, click the item to change, enter the new item, and then click the **Write** button.

1) Comments

Click the **Comments** tab to display comments stored in the drive equipment. Comments can also be rewritten.
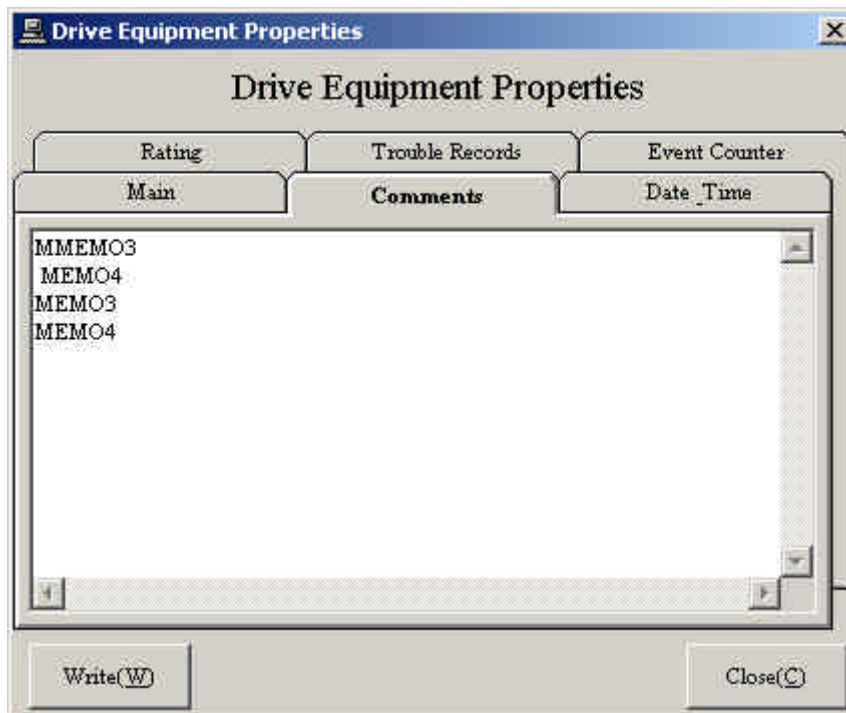
Figure 6.10.2 Comments

2) Setting time
Click the **Date_Time** tab to display the drive equipment time and the current time (of the PC).
Click **Set Current Time** to synchronize the drive equipment time with the PC time.
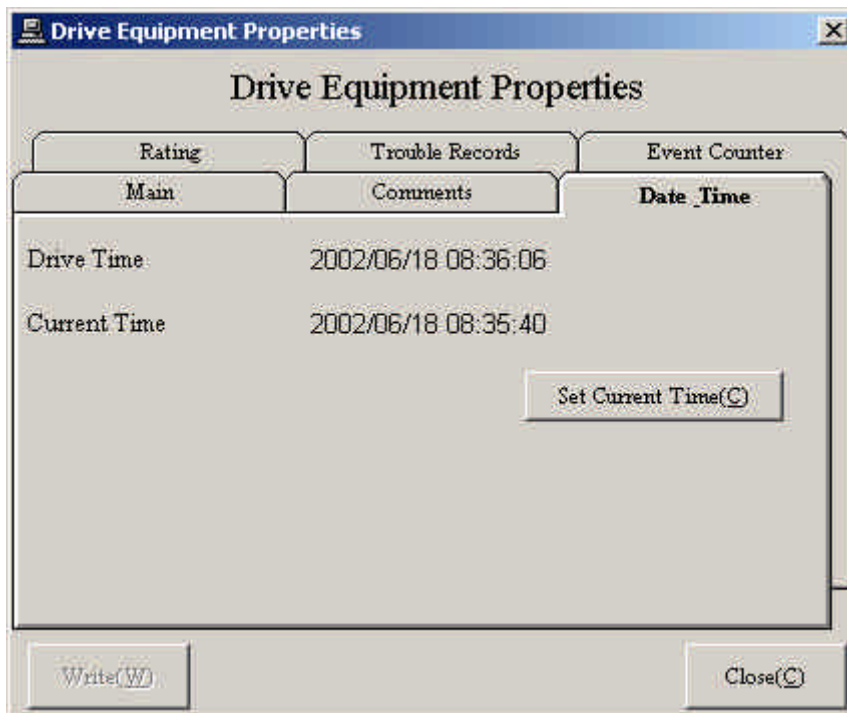

   Figure 6.10.3 Time

3) Rating
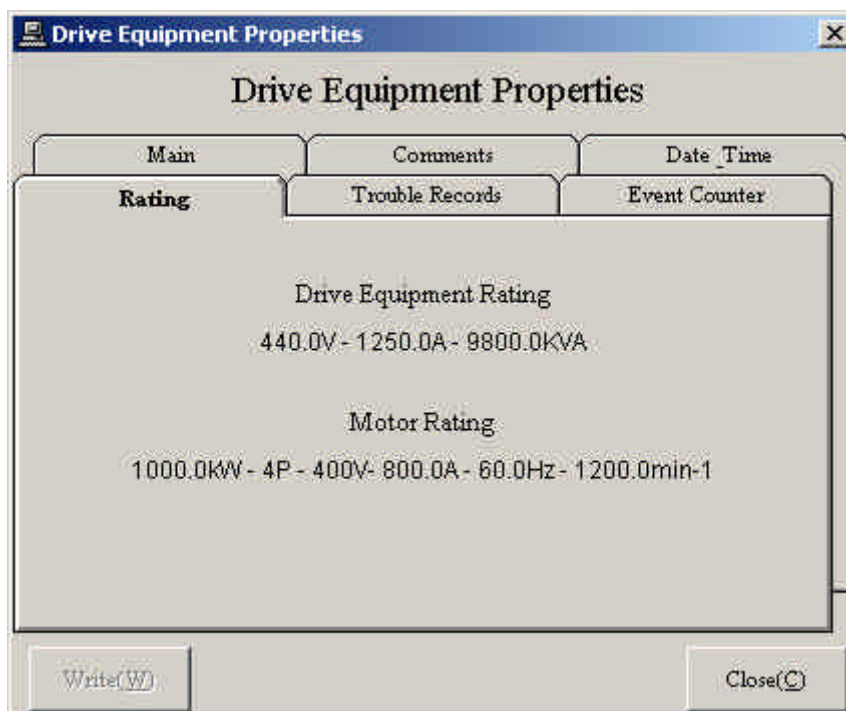Click the **Rating** tab to display the drive equipment and motor rating. This window is read only.

Figure 6.10.4 Rating

4) Trouble records
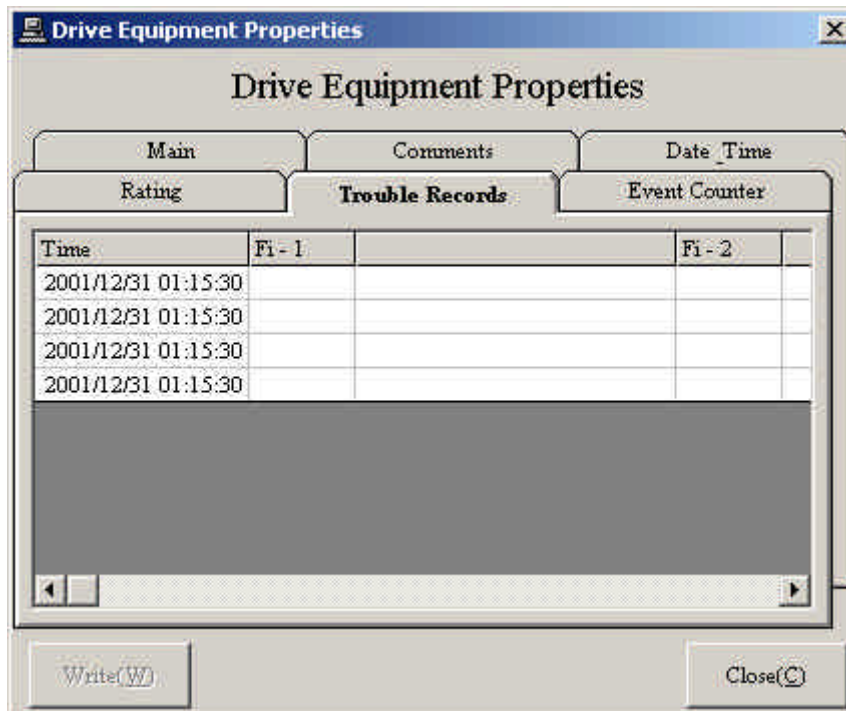Click the **Trouble Records** tab to display the trouble records of the drive equipment. This window is read only.

Figure 6.10.5 Trouble records

5) Event counter
Click the **Event Counter** tab to display the drive equipment event counts. Event counts are items, such as contact open/close count, that depend on the drive equipment type.
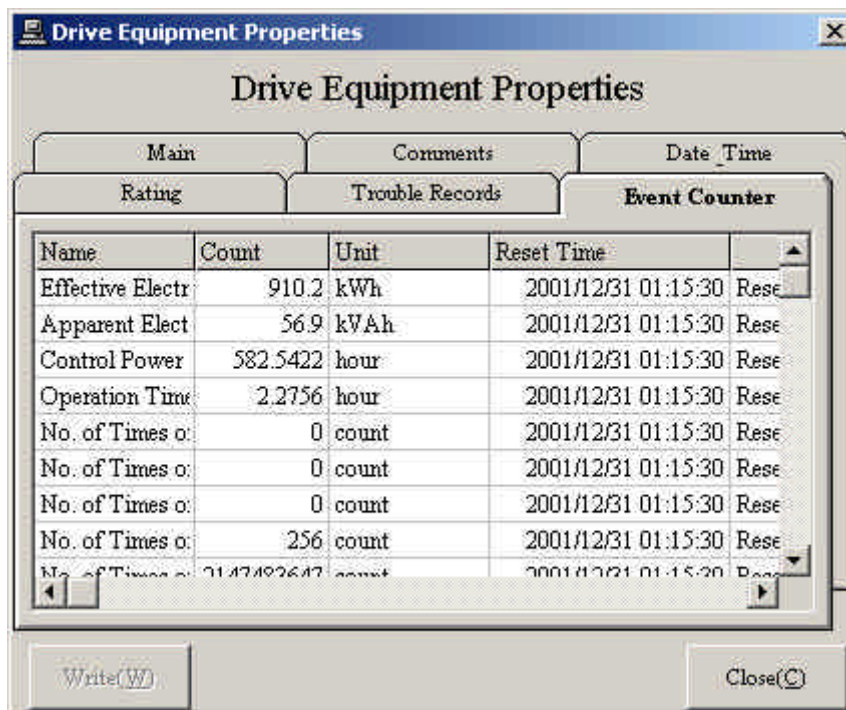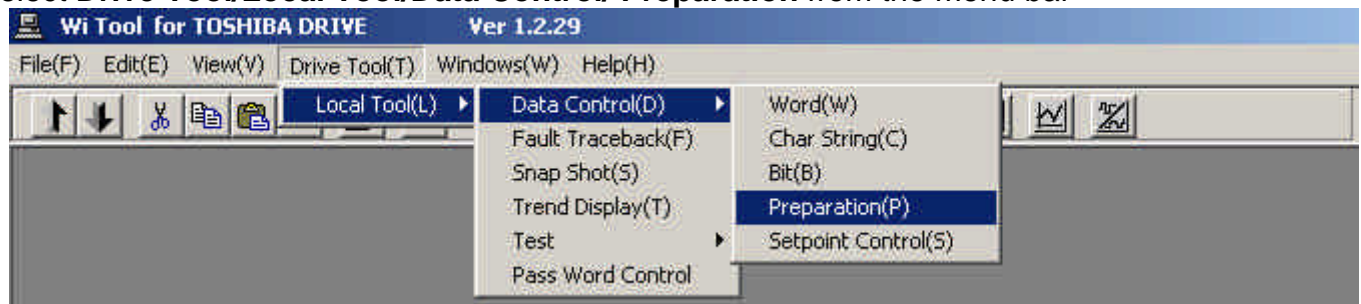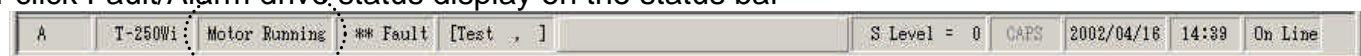

Figure 6.10.6 Event counter

[6-11] Preparation detail description

This function displays the drive equipment operating conditions.
It displays the missing condition if there is any.

Select **Drive Tool/Local Tool/Data Control/ Preparation** from the menu bar

or click Fault/Alarm drive status display on the status bar
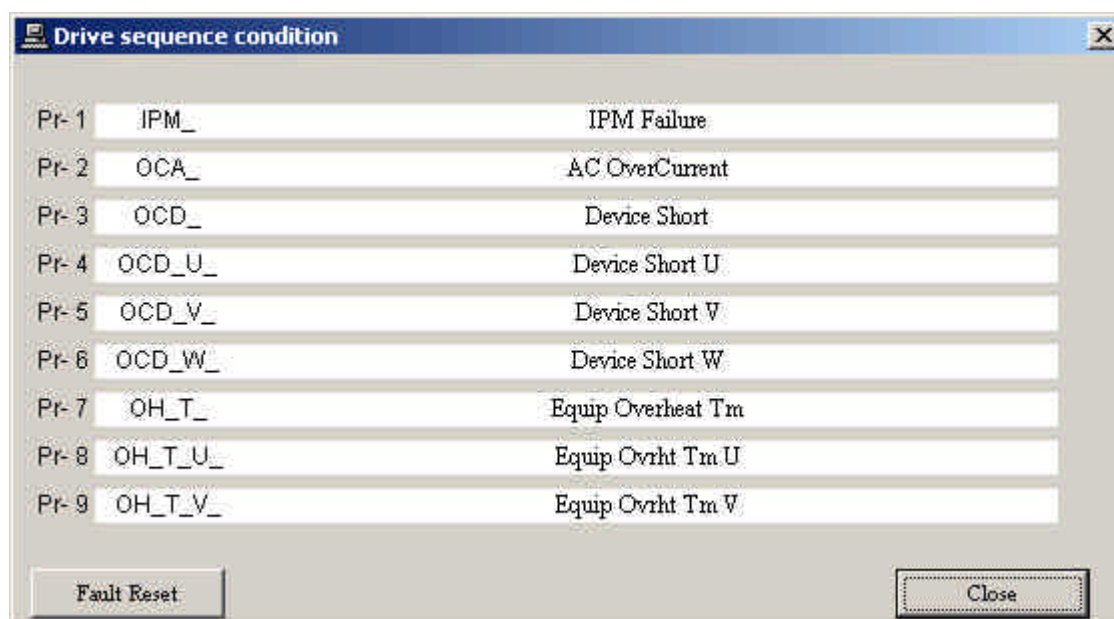

to select. The following window appears.

Figure 6.11.1 Preparation

Click **Fault Reset** in this window to reset faults.

[6-12] Ending detail description

Click x at top right of the main window to end *Wi Tool*.
The following window appears. If set points are changed, but not transferred to EEPROM, click
Cancel and transfer the set points to EEPROM.

Figure 6.12.1 Ending

[7] *Wi Tool* 1:N connection, 1:N RIO connection
[1:N connection]
The following window appears when *Wi Tool* is started after connecting to the drive equipment by 1:N connection via Ethernet.
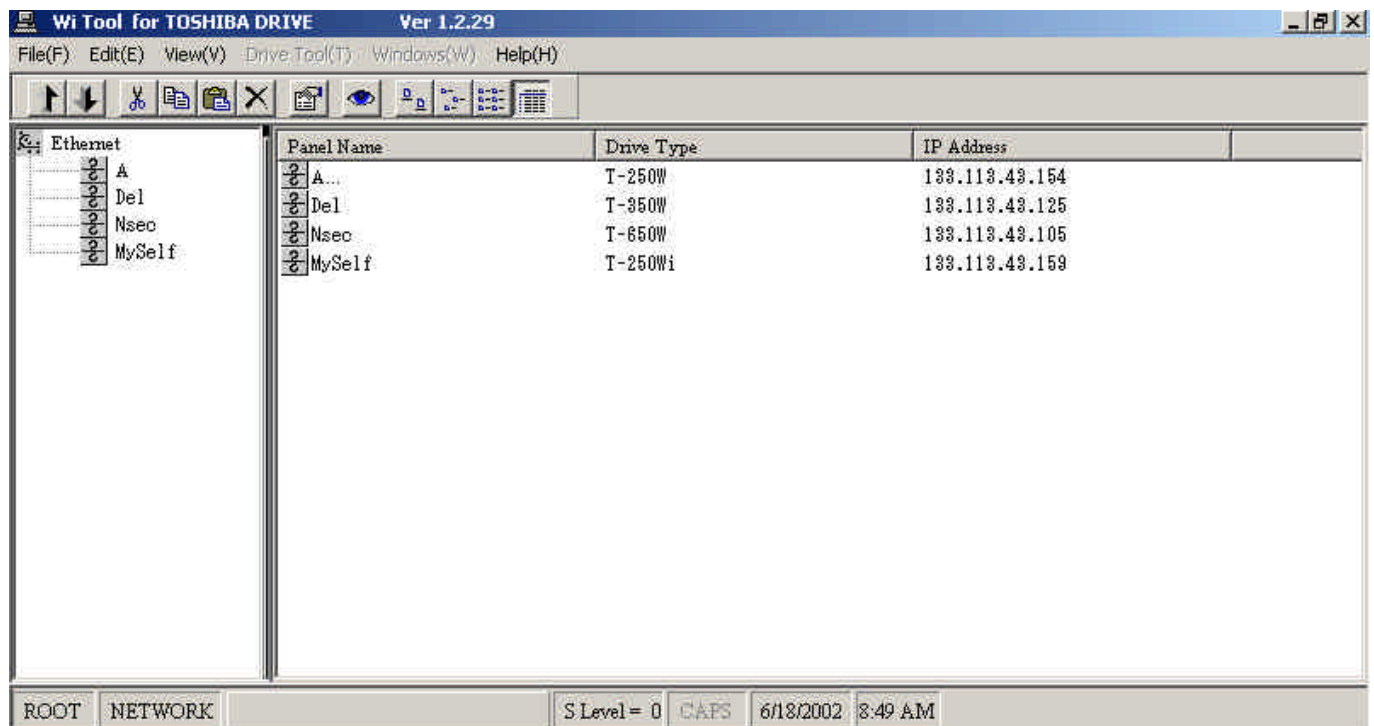

Figure 7.1 1:N connection

The network connection appears on the left side of the window.
Click the drive equipment name in this network connection to connect to that drive equipment.
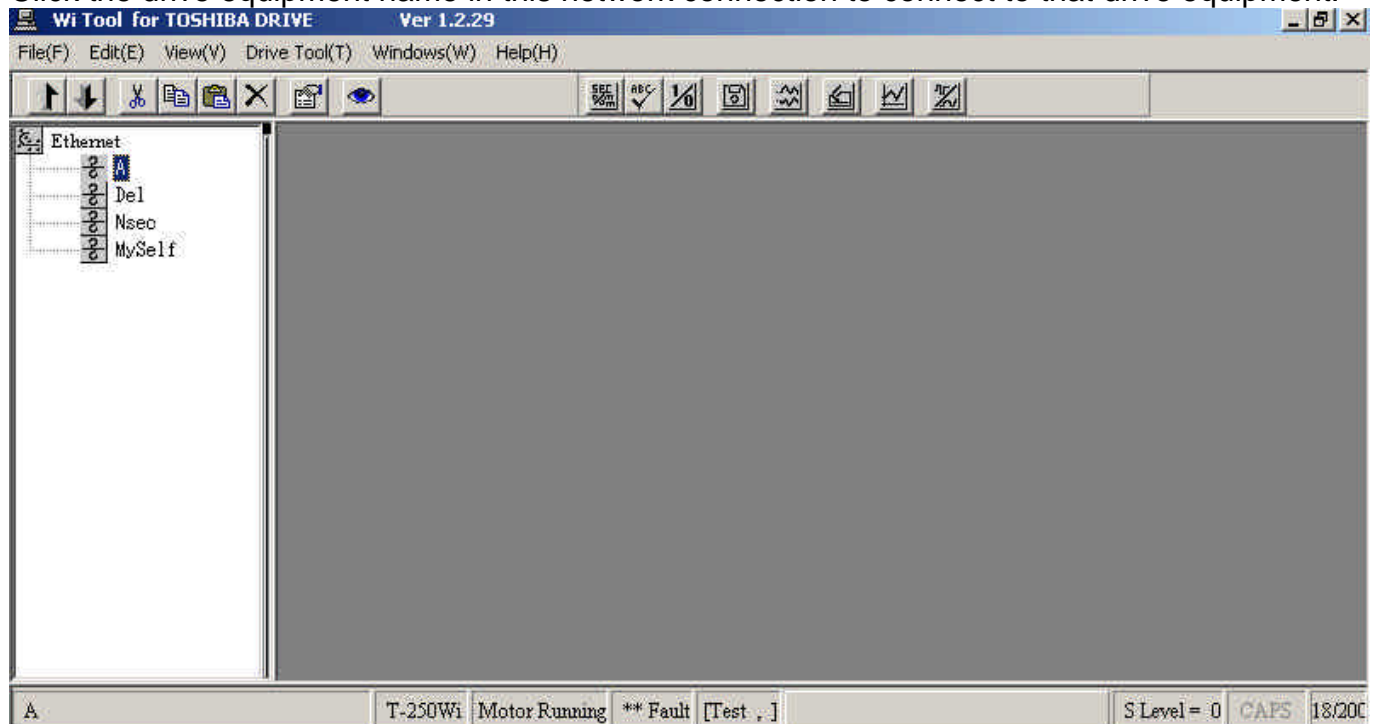

Figure 7.2 Connect Drive

After connecting the drive equipment, functions similar to 1:1 connection become available.

[1:N RIO connection]
The following window appears when *Wi Tool* is started after connecting to the drive equipment by 1:N connection through RIO (remote I/O).
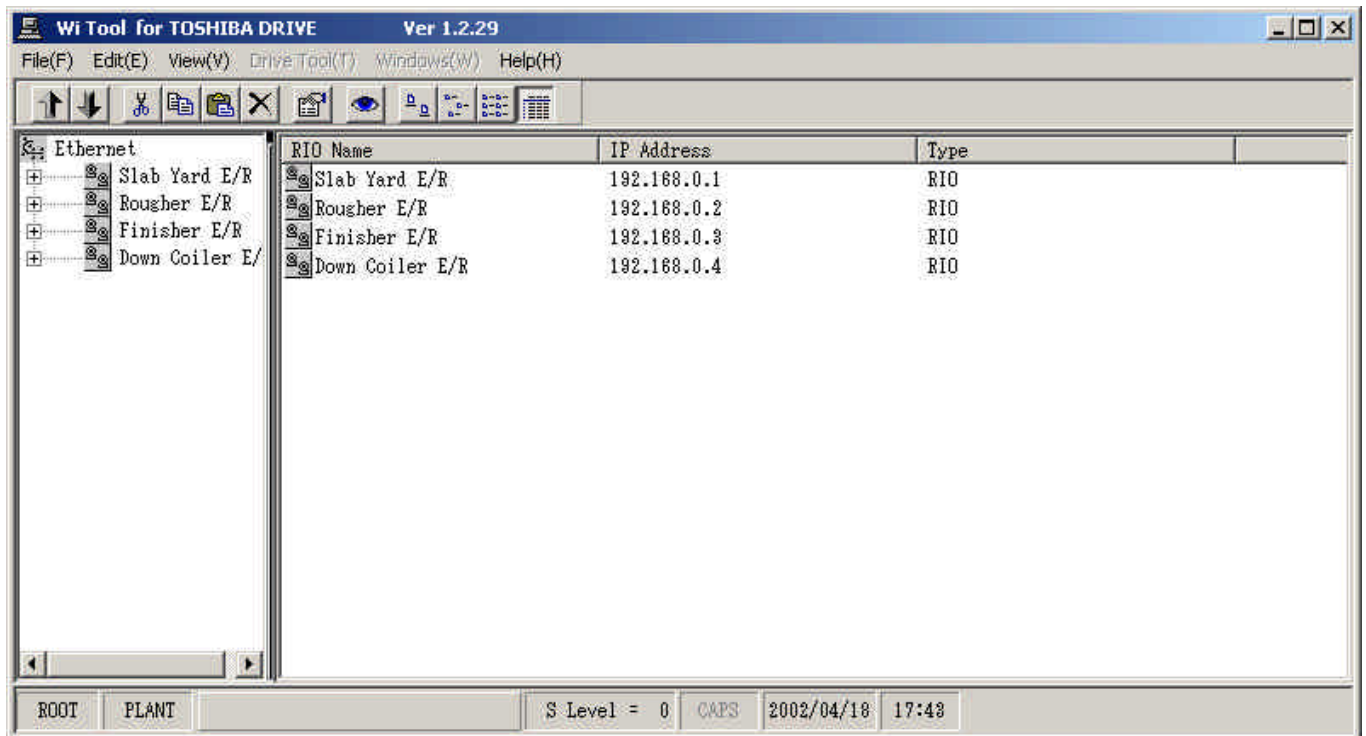

Figure 7.3 RIO connection

The network connection appears on the left side of the window.
Click the drive equipment name in the same manner as Ethernet connection to connect to that drive unit.

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